
EDUCATIONAL STUDIES
AND ADDRESSES

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ADDRESSES

BY

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TO

CHARLOTTE M. MASON

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OF THE

PARENTS' NATIONAL EDUCATIONAL UNION

WHICH SHE HAS FOUNDED

IS RESPECTFULLY DEDICATED

BY THE AUTHOR

PREFACE

The following papers were, most of them, read before various branches of the Parents' National Educational Union, and have nearly all appeared in the *Parents' Review.* The aim of the writer has been to assist the members of that association, and others who are concerned with education, to maintain an interest in studies which are not the less important because they are not novel. Sound principles that are old may easily be laid on the shelf and forgotten, unless in each successive generation a few industrious people can be found who will take the trouble to draw them forth from the storehouse.

Some of the papers deal with the art of instilling a sense of law and order into the minds of young children. Bishop Dupanloup's fine remark, "I will respect liberty in the smallest child", can hardly be too often present in the thoughts of teachers. The meaning of law as expounded by Lord Russell of Killowen may be taken as a clear statement of the theory which underlies the art of commanding men as practised by Lord Collingwood. Considered together, the opinions of the admiral and the lawyer form an excellent introduction to the

understanding of conduct which leads to social and civil order.

The study of Séguin is an attempt to satisfy enquirers who wish to know more of the physician to whom Dr. Shuttleworth dedicates his book on *Mentally-deficient Children.* The seed which Séguin sowed matured rapidly into a rich harvest, but it is something more than gratitude that should impel students of education to revert to the sower and the seed-time, for there is always something in the seed which never appears in the fruit. The life of Séguin is, as Dr. Shuttleworth implies, an inspiration to all who have the care of children.

The study of Don Quixote is an effort to show that object-lessons need not necessarily be confined to natural objects like flowers, insects, or animals. Such lessons may also deal with literature, but in this case a book is the "object" which is studied. There is some danger at present lest, in making up for past neglect of nature, the transcendent value of literature may be overlooked. To preserve the balance between studies in nature and studies in human nature the collection is completed by an address on Manual Training, and an account of a School Garden.

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EDUCATIONAL STUDIES AND ADDRESSES

SÉGUIN

HENRY TAYLOR says, "The world knows nothing of its greatest men". At any rate, while the educational world is ringing with the praise of Pestalozzi and Frœbel, I am not sure that it is aware that there is another name worthy to be associated with these two master minds, and forming a triad uniting the intellectual forces of Switzerland and Germany with that of France.

The name which I would associate with the names of Pestalozzi and Frœbel is that of Séguin; and it is of Séguin that I propose to give some account, commencing with a short biography, and afterwards describing his famous experiment in training what he calls an Idiot Hand and an Idiot Eye.

In 1880, there died in New York, Edward Séguin, at the age of sixty-nine, a man who, on account of his lifelong devotion to the science and art of restoring, or at least elevating in the

scale of living beings, children wholly or partially imbecile and children of feeble intellect, well deserves to have his name recorded in the Liber Aureus reserved for the few men whose lives have been of great service to all the human race, without being the cause of the least harm to any part of it.

Séguin was born in Burgundy, in 1812, and came of a family of physicians of good standing and repute. He had a long line of ancestors who, for many generations, took a leading place as physicians in the Department of La Nièvre. After receiving a complete education at the College of Auxerre, and then in the Lycée St. Louis at Paris, he studied medicine under a famous master of the subject, known as Itard, and also under Esquirol, the psychologist and "aliéniste". Both Itard and Esquirol were profoundly interested in psychological studies, and Séguin had an opportunity of watching the apparently unsuccessful efforts of Itard to develop the mental powers of an idiot known as the Sauvage de L'Arveyron. At the early age of twenty-five his genius led him to the profound discovery which perhaps initiated the study of physiological education, and certainly advanced the art of training imbeciles in a most unexpected way, and, what is more, the whole science and art of education. For of course other philanthropists had tried to teach idiots before Itard, and notably Vincent de Paul, but with what success is shown by the description of Idiocy in the Dictionary of Medicine published in 1837, where it is stated to

be "the absence of mental faculties, or the almost complete nullity of the cerebral faculties"; and farther on, "it is in vain to combat idiocy; in order to restore the intellectual powers it would be necessary to remedy the conformation of cephalic organs which no means have been found hitherto of modifying at all". This was the traditional theory of idiocy, and until it was superseded little progress could be made in assisting idiots. Séguin was led by his own researches to consider that idiocy was not so much due to the malformation of the brain as to its arrested development, which was the result of causes often pre-natal. He seems to have been the first to perceive that the nervous system was an organic whole, and that the brain was not the sole organ of intelligence, independent of the peripheral nerves. He believed that the brain could not be properly said to act as a single organ without parts, and that as in any organism the successful working of the whole depends upon the harmonious action, interaction, and reciprocal action of all the parts, so defective intellect might be due not to the absence of parts, but to the want of co-ordination of action among existing parts.

His idea of a remedy for this arrested development was training of a physiological kind. He contended that by a suitable physiological training of all the senses it would be possible to restore the idiot to a place in society, even if a humble one, and to make his spark of reason smoulder, even if it would never burst into a flame.

While Séguin was working at Bicêtre, he conducted experiments at his own expense, to meet which he earned money by writing for the press and by other literary labours. He wrote articles for one of the principal journals in Paris, of various kinds, including art criticism, and certain others, more filled with feeling and fire, on political and social subjects.

This brought him into connection with the most brilliant literary circle that existed in Paris during the century. Among them were Ledru-Rollin, Louis Blanc, Michel Chevalier and Victor Hugo. All of these were disciples in the school of St. Simon, Père Enfantine, and Olinde Rodrigue, and all alike believed in an approaching revolution when society would be reconstituted on the principle of the greatest happiness of the greatest number.

Among others, he came to know Louis Napoleon, while in his Republican days, but in 1850 he found it necessary, for political reasons, to exchange France for America somewhat hastily, leaving no address on his departure. He had, however, before quitting Paris, as the result of several years of study, written his epoch-making work on the moral training, the hygiene, and the education of idiots and defective children. This work, which was published in 1846, was crowned by the Academy and made the text-book on the subject in England and every civilized country. Meanwhile the working of Séguin's method had been demonstrated at the Paris Hospital for Incurables at Bicêtre, and had attracted much attention.

In America, partly by his writings, and partly by his influence, and partly by personal intervention, he founded, or caused the foundation of, various training-places for idiots. Though well qualified in every way as a general practitioner, and easily able to win a good practice and a lucrative one by the charm of his manner and his profound knowledge and skill, he was never able to tear himself from his special line of study, the proper treatment of idiots, to which he was ready to sacrifice everything; and, not unnaturally, his interest in the education of imbeciles extended itself to education in general. His book on *Idiocy and its Treatment by the Physiological Method*, is one which ought to be read by every serious student of educational literature. Séguin pursued his researches in various directions, and, among other applications of his scientific method, he devoted much attention to the temperature of the blood, and it is to him we owe the use of the clinical thermometer, without some knowledge of which no intelligent mother would in these days undertake the hygienic supervision of her family, to say nothing of its use by medical men. Much again might be said of his views relating to the kindergarten, but time allows it not. He died too soon to complete his work. Educationist, philosopher, philanthropist, man of science, he was perfect in all relations of life. Happy in his marriage, he left a son able to carry on the tradition of his family, and a group of friends in many countries on either side of the Atlantic inspired by his enthusiasm in the service of man.

He was the honoured recipient of a letter from Pius IX thanking him for his services in the cause of humanity. He was a lover of literature and fine art; he was devoted to plants, animals, and children; he was a philanthropist in whose philanthropy there was nothing morose or spiteful, and all forms of social life, in what time he could spare for them, came to him as a welcome refreshment. Bold and independent in his views, he was kind and courteous to all, to his opponents as much as any, meeting attacks, however unworthy, with a Gallic shrug of the shoulders. Burning with indignation over social or political injustice, he never condescended to a disposition of intolerance, and not the least remarkable feature in his character was his sympathetic respect for religious creeds in which he himself had no share. He died without wealth, an exile from his country, leaving, however, a heritage far greater than millions of dollars, viz., institutions all over the world which strengthen humanity in its weakest part, and ideas and scientific methods which posterity will assimilate and carry out to greater perfection. His name lives not merely an honour to the land of his birth, France, the land of chivalry, but also to America, and indeed it merits the proudest addition—*humani generis decus.*

I have endeavoured to describe the man. I pass on to show the workman in his workshop. Before introducing you to the student in his own retreat, I will exhibit him as a critic of one of our English institutions. He was appointed to make a report for a special commission on the training of im-

beciles in all parts of the world for the first exhibition of Vienna. He visits an English Institution among other places in 1867. "The English", he says, "have determined to have the greatest Asylum for Idiots in the world, and so far as money and good-will could avail they have it. But the institution is under a Board of Governors, and the physician is under their control. Hence they have a machine which is driven by men clothed in authority, instead of an organization resting on the tender sympathy and quick perception of a woman who is philosophically directed by some man familiar with the most recent anthropological discoveries.

"*Modus docendi.* Some sixty children formed a class which the teacher had divided into two parts. In front a few infants were being taught to read, while the rest sat behind with slates, under orders to write a copy from a black-board. A glance sufficed to make me put the following questions to myself:—(1) Was it possible for the children to write this letter, (2) at such a distance from their teacher, (3) on a slate resting on their knees, (4) with a pencil that left but a slight mark on a surface polished by long use, (5) with a hand feeble, uncertain in movement, unprepared by preliminary exercises, guided by imperfect comprehension, the difficulty further increased by the feeble powers of reasoning characteristic of such children, who have lived long without instruction, and grown accustomed to act automatically? The slates gave me my answers. They were covered with vague, meaningless lines, often scarcely

visible, which, signifying nothing to the writers, spoke volumes to me.

"There is another defect which is characteristic of great institutions where children are trained for public inspection. In each large class there were a certain number of those who may be termed false idiots, *i.e.* children who are hardly normal, but suffer from the effects of epilepsy, chorea, and the like. These children are pushed forward at the expense of the genuine idiots. Of course they can answer all sorts of difficult questions, and their proficiency imposes on the public. Even this concession is not enough for the visitors. Idiots must be served in all sorts of sauce; there must be musicians, mathematicians, architects, and what not. Utilize time and money, which ought to be shared by the whole of a class, in developing among a few children such special faculties as have survived the shipwreck of the rest, and you may astound fools and thus most effectively advertise your institution. Yet it is all useless. The musician, the architect, or the mathematician, having but one faculty developed, remains none the less idiotic, and his possession will by no means give him a place in society. It is useless to develop one faculty at the expense of the rest; if this is true of idiot asylums, it applies equally to ordinary schools and to the Universities. The English have yet to learn the principles of Physiological Instruction."

This visit took place in 1867, and five years later Séguin gave a far more satisfactory report.

I will now attempt to show Séguin at work on

his own method, as explained to the world in a pamphlet on the *Idiot Hand and the Idiot Eye*, or the training of an idiot child in New York. The following is the description of the Idiot Hand. The hand was small, the nails were dry and brittle; the fingers were short and badly finished; there seemed no power of resistance to pressure; there was no use in the hand whatever; in all respects its conformation exhibited characteristics which are the opposite of those which mark manual dexterity. Movement, however, there was, but it was automatic, having for its centre and lever the wrist. Vigorous as this automatic action could be, the child was quite unable to carry out the simplest direction which involved voluntary action. While, however, the hand was incapable of finer adjustments, the arm could be moved as a whole up or down, although with little precision in the movement, and at times even this action was beyond the child's power. The mistress commenced the process of educating this Idiot Hand by acting first on the shoulder, exercising in order, first the muscles of the shoulder, then those of the fore-arm, and then those of the wrist and hand itself. Thus voluntary movement was gradually extended downwards from the shoulder to the extremity of the fingers. The exercises were done at first through imitation of the teacher, but the child soon learnt to do them for himself as directed.

Thus the education commenced with purely physical exercises. The movements of the hand which ordinary children learn unconsciously and almost imperceptibly may be thus roughly classi-

fied, viz.: holding (both passively and intentionally), seizing, raising, lifting, dropping, throwing, snatching, squeezing, bending, breaking, beating, striking, modelling, combining, uniting, joining, dividing, parting, severing with knife or scissors or saw, according to the resistance offered by the material. The Idiot Hand was incapable of any of these movements. The first step in education was purely physical, consisting of a suitable series of exercises for the arm, hand, and fingers. The intellectual worth of these exercises depends upon the way they are ultimately done, their precision, their rapidity, their unity, their adjustment, their promptness, and their subjection to control and will. The problem of getting the child to imitate his teacher's action in, say, raising his arm, is far from simple. He has to take notice of what his teacher is doing, to form a clear mental image of it, to transmit this image, along with the intention to execute the actions which go to make it up, to the limbs concerned. There is a triple series of acts, involving registration, volition, and execution. The resistance which idiocy, active or passive, opposes to the teacher's efforts is for his or her skill and patience to overcome. The mistress reached the tips of the fingers of the Idiot Hand by commencing with the shoulder; and subsequently group after group of nerves and muscles previously given up to automatism was gradually won for voluntary action, and a set of apparatus that was merely brute was made subject to the sway of reason. The process of training was from great centres to smaller, and centrifugal. In time

the delicate action of the peripheral nerves and muscles reacted on the central, and then improvement and training proceeded centripetally.

As an example of the difference in the power to act according as the impulse is derived from regions nearer or farther from the central axis, it was noticed that the child could drive a nail with a hammer before it could prick a hole on a given spot on a piece of paper. To use a hammer requires no movement below the wrist; it is a shoulder movement; on the contrary, the use of the pin demands little action on the part of the great flexor and extensor muscles of the arm, but much complicated adjustment of the finer muscles of the fingers.

What was the result at the end of a year of this daily training of the sense of touch, this development of interaction or reciprocal action between the brain centres and the peripheral nerves? The child's hand had learnt to help itself, to occupy itself, and to amuse itself; it ceased to be shoved into the child's mouth and bitten, or to strike the child's companions, although the automatic movements did not entirely cease. The touch was developed so far that the child would appreciate the ordinary differences of temperature in air, water, and food, and would recognize and name blindfold, by mere sense of touch, some fifty objects.

The eye also, being exercised in company with the hand, although strictly subsidiary in its use, learnt to distinguish typical forms, first the things themselves, next coloured pictures of them, and then sketches or outlines, and by a simple transi-

tion the child was taught to cut out these things in paper. He also learnt to arrange objects of varying size according to their comparative dimensions.

As the child had shown a natural taste for flowers, and especially sweetly-scented flowers, he soon learnt in the garden the names of some thirty, to say them correctly, and many more with less certainty. This love of flowers made him wish to plant and tend them; he also had a vase of flowers on his mantel-piece, and renewed the water daily with punctuality, and, though busy with other occupations, he never forgot the right time to attend to this duty. Under these influences the sudden and violent emotions with which he had been afflicted before his training, the sudden flow of blood to the head, and senseless actions of passion and rage, gave way to a calmer and sweeter disposition. These results showed themselves, after a little more than a year, in the following changes in his features. His mouth was no longer seen with hanging lower lip, his head was upright on the axis instead of lolling over to one side, and the curious semicircular depression of the forehead between the eyes had nearly vanished. The whole of this system of training is based upon the principle of physiological decentralization. It would have been impossible as a system, although flashes of the principle have crossed the vision of educationists from the beginning, unless the idea of the sovereignty of the brain had not been profoundly modified by the appreciation of the immensely important part played in the intellectual development by the peripheral nerves and the muscles.

The first year of training was devoted, in the way described, to the Idiot Hand; the second was spent in educating the Idiot Eye, and in an analogous manner.

The manual training of the first year had been concerned with the muscles of the arm and hand, the joints of these limbs, and with the sense of touch. By the sense of touch the child learnt to comprehend many objects, and to express in words the impressions which he derived from his sense of touch. He learnt to recognize many objects, to hold things, to put things down, to grasp, throw, &c., and acquired the command over his hand in many operations either immediately useful or indispensable for progress, such as washing and dressing, or holding a pencil or a knife. It took him a year before his hands, at first as flaccid as in death, could button a button or brush his coat. After this he would strengthen his hands by whittling a stick with a jack-knife, and render his fingers more supple and pliant by tracing lines on a slate; he would also learn to throw or catch a ball, though awkwardly, and to manipulate clay so as to form a few models.

In commencing with the eye training, the doctors found the state of the eye as imperfect as that of the hand. Both eyes suffered from lateral nystagmus, that is, the eyeballs rolled from side to side with "a short uneasy motion", and the range of their movement was small. The pupils were of unequal size. He also suffered from hypermetrophy. The optic nerves also were atrophied.

Nystagmus in idiots is of two kinds. It is either the rolling or oscillating movement above described, or else it is a tendency to fix the eyeball with a stare upwards and sideways towards one corner. During Séguin's treatment of this child it was ascertained by oculists that this movement of the eye was akin to the movements known as St. Vitus' dance or chorea, and this discovery led him to seek a remedy in physical training. The eye is educated through the hand. It was Séguin's object to bring the eyeball to repose, to direct it steadily upon an object, and by use of the hand in conjunction with the eye to give intelligence to the act of looking. It is well known of how much use the hand is in guiding the eye, especially in directing and fixing the attention. The hand of an adroit person has almost a language of its own. The Idiot Eye must first be trained through the Idiot Hand. The child must learn to use the index digit for pointing out objects. Special exercises are needed to develop this habit as thoroughly as possible. This exercise is by no means so easy as might appear. The child was taught by use of the index finger to seek and find, to look out for and to look at, to watch and to follow, moving objects and objects at rest. A wide sweep of the hand would fix his eyes on an object, and small movements of the fingers would prevent his attention from wandering off it again. But sometimes his eyes would close when pointing rightly at an object, or else while his finger pointed at the object his eye wandered away from it, while he cried all the same: "Look, look". On such

occasions Séguin never lost patience, nor did he resort to short and wicked words, much less blows. He wrote treatises instead on the obstinate fixing of the will, due, as he argued, to the inhibitory effect of the nerves upon the muscles when a sort of nerve storm is raging, an effect which he carefully distinguished from wilful opposition. The exercises which were necessary during the first year to overcome the flaccidity of the muscles of the hand were continued during the second year, and while at first the hand helped the eye, after a bit the eye, being improved, helped the hand, and the exercises having for their main object the improvement of either organ, the other being for the time subsidiary, at last met in a region where it is no longer possible to say which of the two is the principal one aimed at.

One of the ways of training the eye by the hand was to get the child to trace over a pattern supplied to him by the teacher on paper. At first sight this might seem training the hand by the eye, but it is not so. The hand has to follow a line marked out. To do this it calls upon the eye in a sort of reflex way to help it to follow the line correctly. Thus hand and eye are fixed on one point, and have to move together in one direction, but the hand sets the eye to work.

Eye exercises have been systematically devised for enabling the child to direct its gaze at will and with attention, upwards, downwards, and sideways, and the occupations of tracing patterns, pricking them, and cutting them out with scissors have all been found useful in reducing the disorders of the

organs of vision, which have kept them cut off from communication with objects around them and caused the Idiot Eye.

Modelling has also been found useful. It was soon seen that a hand which had learnt to perform many of the useful services above described, such as dressing, &c., and also to use dumb-bells and go through athletic exercises, was still much too nerveless to make an impression on soft clay. The first step in overcoming the difficulty was to get the child to squeeze an india-rubber ball and let it go again, until the rhythmical contraction and expansion of the ball communicated itself to the hand.

When the child was thus brought so far that he could act upon his material and impress upon it some shape, he was given some clay to work upon. As he could not use his fingers to much purpose, owing to their weakness, he rolled the clay between his palms. A kindergarten teacher would expect this action to have shaped a ball. It did not. The resulting shape was a sort of cylinder, unequally conical at either end. The reason of this was the imperfection of the touch. To make a ball there must be muscular action combined with a sense of touch, which produce together the rotary motion needed to make a spherical shape. If muscular activity is present alone, the clay becomes irregularly cylindrical. The child, however, as his sense of touch had gone through much preliminary training, soon proved equal to making a ball of clay. To form a cube or a pyramid in clay, besides action of muscle and touch, a third thing

is required. The eye must be brought into play. And here at once a trap is set for the unwary teacher. It is hard to make a cube by use of hand and eye. The kindergarten teacher therefore shows her pupil how to flatten first one side of a piece of clay and then another on a slate or desk, until six flat sides are produced. No doubt this is an excellent way to make a cube if it be your object to make a cube; but that is not the intention of the teacher of the idiot. He wants to enable the child to impress an idea of form on matter by an infinite variety of acts of pressure on the part of the nervous-muscular mass concentrated at the ends of the fingers. To instruct a child, whether normal or idiot, for show, let him use the table as a mould, and instead of his two eyes the legs of a pair of compasses to measure distance. But this is not education. It is to mistake means for ends, and to make the hand and eye dependent upon mechanical aid just when by carefully graded exercises of increasing difficulty they are prepared to act independently of such crutches. The effect of it is to make the Idiot Hand and Eye return to the automatism from which you have been rescuing them so painfully.

It is not likely that the works of art in the way of drawing and modelling produced by such an artist as the child with hands and eyes as described would reach a high standard absolutely, so as to please others, but here are the results won for himself. He has learnt to express a mental image in clay, which, although imperfect, reveals to him the action of mind and will on matter; he

has learnt to act at the instigation of another, to carry out his wish, and to form and carry out a wish of his own. His eye responds infinitely better than before to his hand in the way of directions, presentations, ideas and suggestions, and impulse; the oscillations of his eyeballs have decreased; the fixing of his eyeball at an angle is rarer and less persistent. The child's vision, the "idiot eye", is more under the control of his own will and that of those around him. The transition from things and acts to speech has been in this manner. His vocabulary is now reasonably correct; things and their names have been presented together, and in presenting objects care has been taken to name them along with their qualities, movements, characteristics; and, in addition to this, much attention has been paid to contrast, and along with a given quality its opposite had been cited; similarly, analogous ideas had been introduced where appropriate. Thus, nothing had been spoken of without setting alongside of it some contrast or some analogous conception or object. Pictures, too, and portraits he loved to look at, having learnt to give value to every detail. In this way he knows by their face and actions a number of great men.[1]

"But", someone will say, "seven or eight years old, and the child has not been learning to read or write. When will his education really begin?" "When", says Séguin, "his mind shall have been stored by the exercise of his senses with a number of correct impressions of objects. Let him remain

[1] See *Archives of Medicine*, October, 1879.

in an 'analphabetic' condition until his preliminary stock of ideas gives him some chance of being able to follow what he reads, and then he will not be exposed to the absurdity of being set to read by some teacher, really more imbecile than himself, what he does not understand a word of. Let him, for some time at any rate, be set to read what he has himself helped his teacher to compose and what he has himself written."

If it be asked, How can the study of defective intellect of cretinous children really throw light on the mental growth of healthy and normal children? the answer is to be found in Séguin's discovery, that the normal intellect depends upon the interaction and proper co-ordination of various parts of the nervous system.

To understand the co-ordination of the parts of a complex machine the first thing is to learn the function of each part separately.

Now in a normal child the various parts of the nervous organism work so rapidly and promptly that it is almost impossible to follow the process of co-ordination. It is indeed quick as thought.

In the cretinous child, owing to want of co-ordination, different movements can be studied before they are combined into a whole. The method of training such children consists in doing for them artificially what in the ordinary child is done naturally.

With the necessary modifications, what is good for the abnormal child is a basis for dealing with the normal child. The study of the slow movements of the defective intellect is like examining

minute structures with a microscope. Analysis is rendered possible. Very minute intervals and distances become apparent under a lens which escape observation without it.

Imbecile and defective children, the blighted flowers in the kindergarten—these were the objects of Séguin's life-work. Let the world cherish his memory. Many ladies are following in his steps. Let them find some refreshment in the fact that their act of mercy is not merely as the nurse at the rear of the battle-field of life, attending to the disabled, but that their labours also place them among the pioneers who are preparing the way for the advancement of the knowledge of the human mind.

MANUAL TRAINING

LECTURE TO TEACHERS AT THE
BRADFORD EDUCATIONAL EXHIBITION, DECEMBER, 1899

I HAVE often had the pleasure of taking part in conferences on manual training, and I cannot say anything new. My object to-day is to review the reasons for its adoption which influence its advocates. The movement spreads continuously, in ever-widening circles. Its progress during the last twenty years has been perhaps slower than some might desire, but the ground won is held, and the advance is sure. The growth resembles that of the oak and not of the mushroom. After all, there is plenty of time in the next century.

Manual training is advocated on many grounds: it is a necessary part of sound intellectual training; the laws of sound health demand its practice; and art, science, and industry all require its support. I, however, addressing teachers in West Riding schools, wish to emphasize the ideas of its first founders—the spirit of men like Uno Cygnæus, the father of Finnish elementary schools, and Herr Salomon, the founder of Swedish manual training.

These men never ceased to dwell on the idea that all education must be spiritual. "Work in education is work for God", they affirm, and "all education is something sacred". Their thoughts

are the conceptions of men who regard education as something higher than a mere industrial question. Improved education has something higher in view than increase in corn and oil and wine, as if a large school were but the entrance or porch to a still larger barn or granary. These men set the needs of humanity in the forefront, and their first aim is the sound training of the child, to make him become as perfect a human being as his nature permits him to be made. They desire that every child that is born shall become complete as a man, and not a mere animated tool for use in industry or commerce—mere labour for the cheapest market.

Manual training is essential to the proper development of all human beings. The West Riding, unless I am mistaken, is yet a land where music and song are loved without stint. Let the Yorkshire dalesmen cling to this precious birthright, and not think for one moment that advocates of manual training bid them make any sacrifice of the Muses for merely material gains, or toss away the solid end of life, which is ideal, to win the luxuries of fine raiment and the like, which are the realities of kings' palaces. Our aim is to make life not emptier, but fuller; to make the vision of the poet and the meaning of music more fruitful and inspiring; and to awaken wider sympathies between man and man. We wish to contribute to the solidarity of the human race by enlarging the early experience of each member. We wish to avoid cramping and confining the growing mind through a one-sided and narrow book-training. Our desire is to set the roar of the mill and the

clang of the forge to the music of great thoughts and great tunes. Manual and literary training must be combined.

Perhaps some one will ask why manual training is more necessary in schools at the present time than it was in the days of our fathers. A moment's reflection will supply a complete answer. During the past hundred years a great change in the conditions of industrial life has been in process, and the change has had an important bearing upon the way we all live at the end of the nineteenth century. If you talk, for instance, with almost any farmer whose years number enough to have whitened his hair, he will tell you how in the days of his youth every household was a miniature technical school. In every homestead, each day of the week and each season of the year provided different occupations, which called into play the active use of the hand, alike for men and women, aided by boys and girls. Monday, it might be, there was baking; Tuesday, brewing; Wednesday, perhaps threshing; Thursday, thatching; Friday, constructing a hovel, or some rough carpentry. The women spun and wove. In different neighbourhoods different things were made; but in every home all were busy with their hands. In these days, all those things that once had to be made at home are purchased at a store, or brought round by a tradesman's cart. Machinery saves hand labour, and nothing is made at home. The hand has no chance of being trained at all. Now it is clear that in old days, when the hand was trained at home by many and varied occupations, all that the school had to do

was to supplement this manual work by a certain amount of book-learning. In the present day, if the training of the hand is omitted at school, the hand is never trained at all.

Yet the training of the hand is essential. Students of anatomy, and biology, and mental science—men like Sir James C. Browne in this country and Professor Marshal in Leipzig—are agreed as to the overwhelming importance of the proper development of the muscles of the hand during childhood, and especially before the age of fourteen, by which period the nervous and muscular apparatus concerned in the skilled use of the hand is more or less complete, and cannot so well be modified. Further, it is insisted on that the proper development of the brain itself depends upon the proper and varied employment of the hand in early years. This fact may appear a paradox to many, but the clearest illustration of it is to be found in the observation made by anatomists in dissecting the brain of a person who has lost a limb in infancy and has died in maturity. It appears that the part of the brain tissue which was connected through nerves with that lost limb is dwarfed, atrophied, and undeveloped. What happens when a limb is lost altogether happens also to some extent when the limb is little exercised. "Men", says Marshal, "who attach little importance to manual training are blind. Scales must fall from their eyes before they can see how intimately humanity and civilization are bound up with the use of the hand, and admit the fact that no man's head-work is as com-

plete as it might be unless he has learned the use of his hands."

It cannot, I think, be denied that the character of the average home has changed since it has ceased to be a miniature technical school. There are fewer educational incentives in it, and more opportunities for amusement. Hence there is less practical intelligence, less of the spirit of industry, less thrift, and less moral earnestness.

Education in which the use of the hand is no less suitably attended to than the use of books, will lead to a life more healthy, more happy, and more natural than a training confined to literary studies. Modern literary taste might easily improve. If school life is reduced to a mere cram of text-books studied for examination purposes, and supplemented by professional athleticism, what can be expected of the scholars in later life but a contemptuous performance of the drudgery of business during the day, followed by the false excitement of betting and gambling, varied with the banalities of music-halls, after the day's work?

But the handwork in the school must be of the right kind. Beware of industrialism in education. Beware of thinking it proper or possible to make money out of a child's labour, and in so doing to educate him at the same time. There are here and there farmers and gentlemen in country districts who would send a boy to scare crows from morning to dusk, and call that occupation education—technical education, of course. In towns there are those who would set children, for ex-

ample, to gum envelopes all day, and call that mental training, or character-forming, or technical education.

Children at school cannot be prepared for a special calling in after-life. If any zealous person imagines this to be possible, a glance at the bulky volume called *The London Trades Directory* would be enough to correct him. The important point to consider is rather this: Has their school life tended to unfit the children for their calling in after-life? Do the children, on leaving school, find themselves content to take up whatever occupation they may have to earn their living by? An education which unfits the scholar for his subsequent career as an apprentice to a trade or calling is most unsatisfactory. It ought to be possible to avoid this defect without attempting what is quite impossible—to prepare a school-child for a trade. Mere book-learning which is not supplemented by handwork does tend to unfit children to take up work which demands the use of the hand.

It must not, however, be supposed that the training of the mind is to be sacrificed to the training of the muscles. Apart from the use of the hand, the brain itself as an organ is imperfectly developed. The early exercise of the muscles of the hand develops the brain as much as the development of the brain aids the growth of the finer muscular activities. It is not possible to choose between training the intellect and training the muscles. Both must be trained together to make a complete man.

To put this in another way. Nervous force is

brought into play in the reception of impressions through the senses; again, as often as muscular reaction follows the stimulation of the nerves, nervous force is also brought into play. For health in mind and body, there must be a balance between these two kinds of nervous activity—between the force which is chiefly receptive and the force which is chiefly creative, as between imports and exports.

There is in most children a wholesome desire to perform acts, if not constructive, then destructive. It is the fault of the teaching if this desire is not guided into habits of making rather than marring. The true remedy for stupid and cruel displays of force in hobbledehoys, and of "Hooliganism", is manual training.

Manual training, then, must be considered as a part of general education, and must be introduced into the school routine for its own sake, and not because it subserves the purpose of technical education. The method of instruction must on no account be assimilated to workshop training or that of technical schools. It must be systematically developed on lines suited to this conception of it as a part of general education, as in Sweden and Germany. It must not be taught on any system which is simply industrial. For this reason, the school children must not devote all their time to perfecting a few joints and mere preliminary exercises. They must construct simple articles of which some use can be made, and the use of which they can see.

If we ask for what standards and classes manual

training is needed, the answer is, "For all". It must begin with the kindergarten, and must continue in the lower standards, and so on through the school. The later we commence hand and eye training, the harder it is to secure success. If when children first go to school their senses of touch and sight are neglected, the number of children with purblind vision and blunted tactile perception will be greater in proportion to this early neglect.

In dealing with elementary schools, it is most important not to confuse elementary training with advanced training. This confusion is easily and constantly made. Of course, advanced training must be specialized training; it would be faulty if it were not. Elementary training must not be specialized; it is faulty if it is. If you are training an apprentice in joinery, you will, doubtless, find it better to use English carpenters' tools, in spite of some of them being, as compared with American tools, somewhat antiquated. If, however, you are not dealing with a joiner's apprentice, you are not limited to common English joiners' tools, and the particular kind of tool which you use depends upon quite other considerations. The knife, no doubt, is not a joiner's tool, but it is the primary tool with which some of the finest work is done. The gardener, for example, does not bud or prune or graft with a chisel or plane, but with a knife. It is worth bearing in mind, by the way, that John Hunter, the famous surgeon, in his youth practised woodwork.

The aim of all elementary education must be of a general description; the aim of advanced training

is skill in a particular trade. In elementary training various faculties must be partly trained, and then when mature the scholar will select, as circumstances may determine, some one of them by which he will elect to make his living, and develop it fully and completely and professionally.

Much that is spoken with truth about specialized and advanced training is wholly out of place and misleading when the subject dealt with is the general education of the child in early years and in the elementary school.

Attention to these considerations is important, because if they are neglected, the result may be the teaching of the more or less adroit use of a few tools, the structure of materials, and the tricks of construction, and yet in the end disappointment will arise. Instead of an improved general education, there will be only so much more commercialism, and so much more cheap labour.

The object of education is to awaken spontaneity in the child. How can this be done if the teaching constantly holds before his mind that he is being trained for a particular purpose, and that his every action as a child has a direct bearing on his future occupation? Rather should the ultimate end or utilitarian value of his handwork be kept out of sight, or at least in the background. Let his childish activities occupy his thoughts wholly for their own sake.

It does matter what thoughts are running through a child's mind when he is at work. Let him in his manual training make for his mother a penholder or a wooden spoon, or a cardboard port-

folio for his father or sister. Let him work for others without reward, and so procure a few precious moments of self-forgetfulness. If the child in the elementary school is allowed to spend all his time in making joints which are laid aside when finished, no account is taken of the child's heart. The past cannot return, and the home has ceased to be a centre of practical training; therefore children must acquire this at school.

Mr. Worthington was appointed by the Board of Trade as a special commissioner to enquire into and report upon the condition of British trade in South America. He reports a falling off of English trade, and attributes it to (1) English ignorance of the decimal system, and (2) to inferiority of English packing. "The French cases arrive in good condition, whereas the English arrive badly broken." Mr. Johnson writes from Brussels that English trade has lost its influence. "We are beaten only in small matters of general neatness." Manual dexterity, which leads to neatness, must be cultivated at school or nowhere. We cannot afford to send the children out into the world with hands untrained in habits of neatness and accuracy.

Lessons in drawing must be connected with practice in cutting out and constructing models of various kinds: in the lower standards the material may be paper and cardboard; in the upper standards it may be wood. Handwork may be employed in illustrating lessons in elementary science. If children do not thus learn the use of their hands, either at home or school, the general level of manual dexterity must fall lower and lower; and

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me by far the best, psychologically considered."

In the introduction of manual training into this country Bradford has been one of the most active of pioneers. The work has been taken up in the right spirit, and carried forward upon right lines. After all, this is only as might be expected. The country owes it to a member for Bradford that a national system of education became an accomplished fact. We naturally look to those who laid the foundation to give us ideas for the completion of the edifice.

OBEDIENCE

OR

THE PLACE OF MILITARY DISCIPLINE IN EDUCATION

"Obedience for its own sake is the worst of vices."—*Headmaster at the Headmasters' Conference*

FOR a most amusing description of disobedient children no better reference can be found than Acton Bell's novel, *Agnes Grey*, and more especially the following graphic scene, when the heroine was a sorely-tried governess in Mr. Bloomfield's family:—

"I particularly remember one wild snowy afternoon after my return in January; the children had all come up from dinner, loudly declaring that they meant 'to be naughty', and they had well kept their resolution, though I had talked myself hoarse and wearied every muscle in my throat in the vain attempt to *reason* them out of it. I had got Tom pinned up in a corner, whence I told him he should not escape till he had done his appointed task. Meantime Fanny had possessed herself of my work-bag and was rifling its contents—and spitting into it besides. I told her to let it alone, but to no purpose, of course. 'Burn it, Fanny,' cried Tom; and this command she hastened to obey. I sprang to snatch it from the fire, and Tom darted to the door. 'Mary Ann,

throw her desk out of the window,' cried he: and my precious desk containing my letters and papers, my small amount of cash, and all my valuables, was about to be precipitated from the three-storey window. I flew to rescue it. Meanwhile Tom had left the room and was rushing down the stairs, followed by Fanny. Having secured my desk I ran to catch them, and Mary Ann came scampering after. All three escaped me and ran out of the house into the garden, where they plunged about in the snow, shouting and screaming in exultant glee. While I stood just without the door, trying by grim looks and angry words to awe them into subjection, I heard a voice behind me in harshly piercing tones, exclaiming, 'Miss Grey, is it possible? What in the devil's name can you be thinking about?' 'I can't get them in, sir,' said I, turning round and beholding Mr. Bloomfield, the father of the three hopefuls, with his hair on end and his pale-blue eyes bolting from their sockets. 'But I *insist* upon their being got in,' cried he, approaching nearer and looking perfectly ferocious. 'Then, sir, you must call them yourself, if you please, for they won't listen to me,' I replied, stepping back. 'Come in with you, you filthy brats, or I'll horsewhip you every one,' roared he; and the children instantly obeyed. 'There, you see, they came at the first word.' 'Yes, when *you* speak.' 'And it's very strange that when you take care of them you've no better control over 'em than that.'"

Who that has had the care of children without possessing that liking for them, which is said to

be an acquired taste, does not sympathize with poor Miss Grey? And yet, although this young lady, possessed as she was of great ability and a trenchant faculty of observation, and also fortified with some philosophy of education, met with such disastrous failure, many good-natured unsophisticated girls of only twelve or thirteen years would have reduced the lively trio of juvenile anarchists to happiness, good temper, and good order without the slightest consciousness of having done anything at all remarkable. These are facts of common experience. What is the explanation of them? Perhaps the power of securing obedience is a divine gift, and it may be that no explanation of it can be given. This, at any rate, was the opinion of him who among the Athenian commanders most deserves the title of scholar and gentleman.

"Men differ greatly", wrote Xenophon, "in respect of fitness to rule. One captain of a ship, for instance, will bring his men into port, after a long day's rowing, full of good humour and mutual congratulations in spite of being exhausted by their work, and bathed with perspiration. Another will put into port after accomplishing only half the distance, his men hardly breathed by their exercise, and yet grumbling, discontented, and full of hatred towards their captain. So, too, in the army there are generals who can neither get hard work out of their men nor inspire them to face danger, and whose companies take to themselves credit for disobeying orders, instead of feeling the disgrace of it."

"There are other generals," continues Xenophon,

"divinely great and excellent, who secure willing obedience, and whose men are prepared to go through fire and water with them, regarding good discipline as the highest honour, and the opposite the deepest disgrace. Their men may be relied upon for working their hardest whether alone or as one of a company. It is the same in civil affairs," he adds; "success in business accrues not to him who relies on rewards and punishments, but rather to him whose serene presence stimulates the workmen to energy, perseverance, and cheerful obedience. Let us reserve", he says, "our admiration for the master whose men, if they catch sight of him, are spurred on to mutual rivalry and burn with ambition to excel. Such a man", says Xenophon, "has something of the kingly character in him, and I am not sure", he says, "that it is possible for anyone to learn this art by seeing it done or by hearing about it, for I do not believe that this faculty of obtaining willing obedience is entirely human, but I rather think it is divine, and that God grants it to those who are initiated in true wisdom, whereas the exercise of despotism over men against their will is an office which they reserve for those whom they consider worthy to live the life which Tantalus is said to live in hell, fearing a second death."

Now it may be that as regards the art of control, whether of children or of men, there is no theory which will completely match the practice; but as the power to secure obedience lies at the root of all efforts to train children, prudence commands some critical study of those teasing and tantalizing

problems which present themselves to all, and trouble the thoughtful and conscientious few. "I find no difficulty in securing obedience from my children," says one. "And what is your counsel?" "It is just this. Suppose my little boy is playing in the drawing-room, I tell him, 'you may play as long as you're good'. He begins to be naughty. I ring the bell; the nurse comes down and the boy goes up. He forfeits the pleasure of my company. The plan is simplicity itself." "Implicit obedience," says another, "that is my system. I will have that and nothing less. Miss Grey's mistake was reasoning with her charges. As to her Tom, she should have thumped him with the back of a hair-brush, and all that scene would have been avoided. Reasoning! the only argument a boy understands is the persuasive penny cane."

Implicit obedience! Well, the most perfect examples of implicit obedience and prompt execution of an order are to be found in war. The philosopher, like the dramatist, may be permitted to pass at once from the nursery to the battle-field with abrupt transition. Here is a description of the behaviour of thoroughly well disciplined German troops when reduced to terrible straits in the Franco-German war:—

"It would be impossible to overrate the conduct of the two German regiments, which, with failing ammunition, with companies and drafts of companies dispersed or intermixed, under the eye only of subordinate leaders, delivered their fire as carefully and in as absolute compliance to orders, as if they were on the rifle ranges in peace time.

For two days they had been on outpost duty in contact with the enemy, and they had eaten no food save what they carried in their haversacks. During the day of battle they had been marched backwards and forwards in heavy country, and mostly in retreat under fire, and now at three o'clock, almost physically exhausted, they had to stand for two hours on the defensive. The men were so absolutely worn out that, as an officer of the regiment relates, the repulse of the French was followed by no cheer, no outspoken expression of triumph; the men sank down, and, leaning with their backs against any support available, gazed blankly before them, or even slept; but on the call to meet the renewed assault, every man roused himself from his lethargy, and awaited in perfect silence the next order to fire. Never has there been finer illustration of real discipline than that afforded by the battalion officers, the non-commissioned officers, and the rank and file of the 38th Brigade at the battle of Beaune-la-Rolande."

No one can doubt that there are occasions in life when a training in the practice of implicit obedience, of prompt unreflecting blind execution of orders, is vital. A little child who has strayed out into the roadway, and is in imminent danger of being run over, would be saved from that fate if he were prompt in obeying his mother's orders, "Come here", instead of being in the habit of loitering and enquiring. Shall we, then, rest satisfied with this principle of training, and accept it as solid rock on which to erect the superstructure of the child's character?

Curiously enough, an incident in the same battle makes us doubt whether the principle of unreasoning obedience is quite complete by itself. A small force of Germans, inside Beaune, a mere handful, were being hard pressed by the development of a concentrated attack upon them of some dozen battalions of the French 20th Corps. Suddenly there appeared, as if to their rescue, Captain Feige, with a small additional force. Captain Feige had, however, received orders to march through Beaune, and pass on to a meeting-place on the other side of the village, and even while he entered the village he received a second order to proceed to this destination without delay. Captain Feige, however, on learning the state of affairs in the village, determined to disobey the twice-repeated orders which he had received, and to remain in the village to strengthen the scanty force available to meet the French attack, and he adhered to his decision in spite of receiving a third order. The French attack was decisively repulsed, and unstinted and in unmeasured terms is the commendation bestowed upon Captain Feige by the historian of the event for accepting the responsibility of disobeying orders. There seem, then, to be occasions even in military affairs when disobedience to orders is commended, and implicit obedience discountenanced.

Let me return from the scene of war to the nursery. A father one day, according to a story which I heard from the lips of Mr. Spurgeon, lifted his little boy of four years old into his arms, and carried him into the garden to amuse him with the

sight of the flowers. Hearing himself called, the father hurried away to see what was wanted, first setting his baby boy down on the doorstep, and bidding him to sit there till he came back. Business, however, absorbed the father's attention, and he left home for the day, forgetful of his little son on the step. In the evening, on his return he found the little fellow still seated where he had placed him in the morning, never having stirred the whole day. Is this state of mind, I mean the state in which such implicit childlike obedience is possible, one which is desirable? Ought we to wish to establish in the child a spirit of blind unreasoning obedience to orders such as is essential to military discipline?

We all depend upon each other. We are not like so many Robinson Crusoes living on lonely islands without even a man Friday. Human society is not a mere aggregate of individuals, and in mere self-protection ostracizes those whose individuality and self-assertion are inconsistent with social life. Men must live a large part of their lives in obedience to usage and conventional rules, for otherwise there would be no society. Social life would be impracticable. But there is a difference between the kind of obedience which is necessary for a member of ordinary society and that required in the army, corresponding to the difference between social and military life. A unit of an army is not exactly like the unit of a state. A man may be, and I think ought to be, a unit of the national army as well as a unit of the nation, but the discipline of the army is one thing, and the

discipline of society is another. In an army you look for its perfection in its value as a fighting machine. An army is a weapon of war.

In war, human action must be simplified and reduced to its simplest terms. Army discipline is not merely a set of regulations designed to preserve order among a vast array of men. Army discipline is the result of long-continued habit, which makes the very muscles of the soldier instinctively obey the word of command, so that under whatsoever stress of circumstances, danger, and death he hears that word of command, even though his mind be too confused and astounded to attend, yet his muscles obey.

The discipline of social life is, however, of a much more complex character than this muscular obedience, for the reason that the aims of social life are manifold and diverse, while the aim of military life is single and concentrated. When the aim is single, the means to it are comparatively simple, and when you know exactly what you have to do, there is less difficulty in finding the means to do it. But the aim of social life is not simple. It may be made to appear simple. It may, for instance, be stated that the aim of social life is to make men lead a good life. Complexity, however, enters into the question as soon as we enquire, what is the good life? The members of a social community, say a club or a large school, are apt to be very exacting in their insistence upon conformity to the smallest details of its usages. The members of it who live in obedience to rules of life thus enforced, obey laws which do not

depend upon reflection, but only upon imitation. The consequence is, that they may easily reach a stage when their conventional habits are wholly independent of their hereditary temperaments and faculties. Suppose that a man in this stage happens to be separated from the society in which he has grown up and all its conventional restraints. What surprises are in store! What unexpected revolutions of character take place! The economist becomes a spendthrift, the courteous become selfish, the considerate become cruel, and occasionally the perfect gentleman appears in a new character as the perfect blackguard. More than this, natural aptitudes are obscured and remain undeveloped amid conventional restraints. A possible worker for the advancement of science, in consequence of social pressure may become a commonplace athlete or sportsman. For the same reason a man of mere muscle may become a clergyman or a lawyer, and a post which requires energy and confidence may be filled by a man who is lethargic and desponding.

For every man's character is twofold in its nature. There is for the one part a group of dispositions, tendencies, and possibilities which is inherited, while another part consists of practices and opinions which are imitative and entirely due to the society in which he lives. The educator has to study the natural or hereditary dispositions of the child and work upon them with discrimination, repressing or modifying some, and encouraging others. Military training is like a steam-roller, which, passing over a stretch of ground, makes an excellent road, but crushes out other virtue in the

soil. The discipline of the educator is like the gardener's craft, which takes into account the suitability of each plot of ground and the adaptability of it to varied purposes, and also the capacities and limitations of the plants which he proposes to cultivate.

A fault which arises from hereditary defect must be dealt with in a different way from one which arises through accidental or transitory circumstances. A fault which may lead to a bad habit must be dealt with in a different way from one which is a habit, and a fault which has become a second nature must be dealt with in a different way from one which is a fault of nature. There are faults committed by the child, and there are faults in the child.

One child is untidy by natural disposition, another because no one has shown him how to be tidy. One child is cruel by disposition, and torments his companions or dumb animals because of the unsympathetic hebetude of his nature; another is cruel through heedlessness and want of knowledge. Some are born cowards, and others are made cowards by the excessive timidity of those who train them. Some are born gluttons, and some are made greedy by mistaken kindness. Some are by nature deceitful and unreliable, others by mistaken approval of some chance art of deceit, which ended in a laughable incident to the amusement of their elders. Some children are by nature inattentive, others because they have never been trained to pay attention. As a rule, the mother is a better judge than the father of these dis-

tinctions, and her mistakes will be due rather to the heart than the understanding. Intellectual deficiency is not unfrequently due to some physical imperfection which has escaped notice, such as a slight defect in hearing, or in the sense of sight. The causes, then, of children's disobedience are manifold, and cases require very different treatment.

Obedience, such as is the first duty of a soldier, is of a more limited description. Let us think for a moment more exactly of the nature of military obedience, or the instinctive response of the muscles to the word of command, in other words, the discipline of parade. How quickly can an order be executed? The art of obedience to an order may be divided into three periods, which correspond to three operations of the nervous system. There are afferent nerves, or in-carrying nerves, which bring a stimulus from the skin to the brain; these set in motion some of the complicated nerve-cells of the brain, and these, in their turn, stimulate the efferent nerve, or nerves carrying nervous force outwards from the brain to the muscles. It is important to note this threefold division of nervous action, because from experiment it appears that while neither practice, nor training, nor education can do much to increase the speed of the action of the in-carrying or out-carrying nerves, they can do a great deal to enhance the rapidity with which the nervous force is discharged from the brain-cells, and in co-ordinating the action of different centres.

The in-carrying nerves are often called sensory nerves, and the out-carrying nerves, motor nerves.

The work of the brain is like an obstruction between the word of command received by the *sensory* nerve and the execution of the order by the *motor* nerve. The period during which the cells of the brain are doing their work is longer than the time needed for the action of the other two. Training, however, shortens the middle interval, while, as I have said in respect of the other two, although they differ in different people, it does not appear that practice or training can do much to quicken their action. The time taken by the brain in receiving a word of command and converting it into the corresponding action can be shortened, mainly in one way, and that is by constant repetition or drill. That which tends to extend the time is, of course, such action of the brain as is connected with reflection or doubt or uncertainty of purpose. All that is characteristic of reasoning and consciousness must be eliminated if obedience to an order is to be as prompt as nerve and muscle can make it.

What is the least possible time in which a word of command can be heard and acted on—say the order, "Halt"?

Physiologists have reckoned that, roughly speaking and on the average, the sum of the three periods above described, viz., the period taken by the in-carrying or sensory nerve, the period taken by the nerve-cells of the brain, and thirdly, the period taken by the out-carrying or motor nerves in their respective action, amounts in the aggregate to one-sixth of a second. The ideal of drill, then, is that a soldier is able to act on an order within a sixth

of a second of the utterance of it by the commanding officer. This, then, is the theory of "smartness". In military affairs this kind of smartness is pretty much confined to three or four sets of muscles, namely, those of the legs, feet, arms and hands, for these are the muscles concerned with marching and handling a rifle. It would appear that while in general education these muscles ought to be trained to prompt and perfect working, the training ought not to be limited to these as in military drill, but that every care should be taken to make a child prompt in all its movements. The power to carry out a command promptly is the basis of all obedience. Doubtless it is mechanical rather than moral or rational, but it may be regarded as a power which it is important to exercise and develop as a foundation for moral and rational obedience.

It is to be observed that this power may be encouraged by exercises which are almost wholly pleasant to the little child, and this is one of the inner and less obvious values of kindergarten games and drills. Of course, if the exercises are carelessly done, if the games are played, as we say, "without spirit", if directions are only half followed, if there is any dilatoriness or slackness in the execution of orders, they fail of their effect in training the child to acquire that power of acting with promptness and precision which may be called muscular obedience. Hence the immense advantage of teaching children to play together in organized games. They may be taught to insist on each other's playing the game properly

and exactly, and to learn the practice of correct play, and to avoid overlooking mistakes of carelessness, confusion, or insubordination. They will learn from themselves not to tolerate mistaken kindness, which allows a slipshod and flabby practice even of a game. I need not say that in my opinion cricket and football professionally taught and played are simply a continuation of the kindergarten games, and, like them, of the highest educational value.

I accept, then, military discipline thus explained as the physical basis of obedience, and think that it may well be imparted to children through games and drills; but obedience must be moral and rational before it is really human. For military drill can be taught to a horse and other animals, such as birds, and even performing fleas. Some children's movements resemble those of grasshoppers. I never heard of a performing grasshopper, but before training some mercurial youths I should recommend the teacher to practise his 'prentice hand upon drilling a pair of these creatures with their vigorous but unpredictable boundings. Starting with a training which partakes of the nature of military drill, and prompt obedience or power to execute an order smartly, whether the order be "fire" or "fetch your grammar", I proceed to consider the nature of moral and rational obedience.

I have said that a good many practical people insist upon the absurdity of reasoning with a little child. It is urged that a child seldom understands reasoning, and if he does he may win a triumph over you, either because he is clever in making the

worse appear the better cause, or because his limited experience prevents him from seeing what nonsense he talks, or even because he happens to have right and reason on his side.

Miss Agnes Grey's fault, it may be said, was that she overlooked this truth, making herself hoarse with reasoning and argument. A child's treasury of ideas and experience is nearly empty. He knows little of the results of actions. For a boy there are no such things as noise, disorder, or dirt. He regards all this with pleasure, or at least with pure indifference. He will go birds'-nesting in his new hat and coat, and laugh aloud at "wisest aunt telling of saddest tale". He enjoys crude colour, strong lights, and hideous contrasts. He loves caricature, while things out of harmony and proportion amuse him in the same way as their grossness. A mile long ribbon of scarlet geranium, yellow calceolaria, and blue lobelia, at which Mr. Morris would have shrunk, would make a boy cry "how jolly", and then he would gather the flowers and stamp on the border. Children, again, often seem much more heartless than they really are. Their want of sympathy, and readiness to inflict pain, whether on animals or on grown-up people, is often due to ignorance. It is of no use to appeal to principles of humanity with a cruel boy, such as Agnes Grey describes, who tore off the legs of living fledgelings, because you are appealing to the very principles which you wish to instil into the child, and which as yet he has not acquired. I do not think, however, that it is always a mistake to reason with a child, but rather that it is easy to

reason in a mistaken way. When you have established a good principle in a child's mind, then you can reason from it. He forgets it, or fails to see its application. You can remind him of it, or explain the application.

How, then, should Agnes Grey have dealt with her heartless Tom? I expect that if she had managed to procure for him some animal which he could have kept as a pet and learnt to take care of, watching it and interesting himself in its ways, she could have effected a considerable change for the better. This, I take it, is pure Frœbelian doctrine. At least he would have shown kindness to one animal, and the disposition could be further cultivated. If a child is unkind or even cruel to younger or weaker children, it is useless to reason about the evils of tyranny and selfishness. The remedy is to place the small "bully" in the position of protector to some particularly weak child. Similarly, if a boy or girl evince a taste for staring contrasts in colour, there is no use in appealing to the general principles of æsthetics. The remedy is to call their attention to the arrangement of colour in some beautiful picture, or in some beautiful piece of textile fabric.

The child can act upon mental images before he can act (consciously) upon abstract principles. He can be kind, for instance, to a playfellow at school who has just left home for the first time, long before he can appreciate at all adequately the golden maxim, "Do unto others as you would they should do unto you". Simple acts which he may be led to perform with a little

tact on the part of his elders will form a reservoir in his mind, from which subsequently reasoned action may flow in steady stream. A boy can divide the contents of a hamper among his companions long before he can assimilate the doctrine of the "greatest happiness of the greatest number". There is a wide difference between wholly ignoring the undeveloped reasoning powers of the child, and adapting your appeal to reason to his miniature intellect. It is waste of time to appeal to principles before they are formed in his mind. The right way to build up good principles is to make a judicious use of carefully chosen occasions, and wherever it is possible, without wearying the child, to explain the bearing of the action.

If a child is accustomed never to learn the reason for a command, he is apt to look upon all directions as purely arbitrary, and he tacitly believes, and acts on the belief, that he may without offence do almost anything he is not expressly forbidden. "Jack, don't rest your dusty feet upon the cushion of the opposite seat. It is not nice for the next passenger to sit on a dusty seat. You may spoil somebody's dress." If you give a reason where you conveniently can, and where the reason is easily understood by the child, you may implant in him a belief (sometimes unfounded) that you always have a good reason for controlling his actions, and that you don't give unnecessary and merely harassing directions. If an appeal to reason is of little value to the child, it is of great value to the parent or teacher. An order or command

involves a virtue in two persons. There must be a virtue in the issuer of the order as well as in the recipient. Agnes Grey had to deal with high-spirited children. She would regard them as thoroughly disobedient. They would regard her as always thwarting them and restraining them from doing what they wished. She would appear never as a help, but always as a hindrance to their pleasures. The more exuberant the vital force in children the more lively are their actions, the more unexpected their turns and changes of amusement. The caprice of the moment is the "lawless law of their behaviour". No action seems to lead up to any other.

At one moment all is harmony and friendship in a group, an instant later all is quarrelling and discord. Their companionship, like an April day, is an alternation of sunshine and showers, laughter and tears. The children's acts in this case are not in themselves good or bad. They are, however, apt to be appraised as moral actions according to a false standard, and to be praised, or blamed, or viewed with indifference, amusement, or indignation, according as they affect grown people. This more or less chance attitude of their elders towards juvenile high spirits does not help to establish in the child a sense of justice. It is not just to laugh at a child for his smart saying where it amuses, and punish him when it gives offence. The fact is, that no wise person will leave their children to their own caprices for long together. The habit of acting with heed is not always easy to establish, and even the burnt child does not

always heed the fire. Future trouble arises when a child is habitually left to act from mere physical impulse without the accompaniment of any mental effort in directing the action and giving it purpose, and thereby subjecting the physical impulse to mental control. Aimless romping, with its accompaniment of noise, may reduce the exuberance of animal spirits, but it tends to enslave the will.

One remedy is to help children to find out and play at properly-organized games, such as prisoners' base for young boys, cricket and football for older ones, where shouting and muscular activity are directed to some purpose, and hence become necessarily subject to the players' control. Let us follow the boy who has been left to play at his own caprice into later life. He becomes a youth, a hob-a-de-hoy. The feeling "I can", grows with his growth and strengthens with his strength. The well-founded sense of his power issues in a desire to do, but his vague desire to do is unaccompanied with any operation of the intellect. Unaccustomed to act with a purpose even in play he has acquired the opposite habit, and finds action which is directed or controlled most distasteful. He seems to love to act in opposition to order and sound advice, and to desire to do what is forbidden; he shuns domestic life and orderly circles, seeking company which is coarse, vulgar, and often cruel. "*Fait ce que vous voudrez*" is his motto, and although seeking to do what he likes, he finds sooner or later how different doing what you like is from liking what you do. High spirits are naturally associated with manliness, but it does not

seem necessary that sturdy children should develop upon the unattractive lines which I have described. The old plan on which many sensible people have acted since recorded time is the right one. Much attention must be paid to finding right occupations for children throughout the day, and paying as much attention to their so-called play as to their so-called work.

I am not sure that we sufficiently realize that the chief value of the so-called work or lessons which children do is its purposefulness, and this characteristic should belong also to playtime. This also, in my opinion, is pure Frœbelianism. The real difference between work and leisure should be between occupations which are more exacting in their demands on the intellect and those which are less so. No good game like cricket or football is mere play. Neither is it right that any lesson should appear to a child to be an aimless expenditure of energy like a tread-mill. I am no advocate for never leaving children to themselves, or depriving them of the chance of self-determination according to the prompting of their natural disposition, but I think it is the duty of every educator to supervise children sufficiently to see that the occupations of their leisure, however apparently trivial, are purposeful, even if it consist in early years of making the humble mud-pie, or throwing stones at a mark, instead of at one another or at glass windows. The child at play, who, when asked what he is playing at, can only reply "Nothing", is not developing himself at all, but passing his time at the mercy of fortune, which is not always kindly.

It is almost entirely through Frœbel that the real meaning and use of play have been made intelligible to everyone who will devote a little attention to the subject. Animal spirits—exuberant vital force —must not be repressed, but judiciously directed and turned to some definite purpose. They must be made constructive, or else they tend to become destructive.

I began by contrasting two methods of securing obedience, reasoning and force. Agnes Grey tries to make disobedient children obey her by reasoning. Their father reduces them to obedience at once by violent language and threats. "Come in, you filthy brats, or else I'll horsewhip you every one!" The failure of Agnes Grey was due to inexperience. It is useless to appeal to principles before they are formed in the mind of the child. She did not really apply the method which she intended, and her failure is no proof that her method was wrong. Nevertheless, in its ultimate result, the obedience secured by their father would have done the children more harm than the naughtiness which Miss Grey failed for the moment to put an end to.

Mr. Broomfield relied on his coercive power and nothing more. He constrained the will of his children by mere force, practically physical force. His system was the opposite of that of Frœbel. Now it seems to be a crude but not uncommon conception of law which defines it "the command of a superior who has coercive powers to compel obedience and punish disobedience", because if this be correct, force is the governing idea of law, and it is hard to reconcile force with the intelligent

assent of those who are subject to its influence. In place of force, if we wish to act in Frœbel's spirit, we must substitute customary action founded on general consent. Obedience to authority is dearly purchased at the cost of forfeiting respect for law or for the superior who executes it. Even as regards military organization it must be remembered that army discipline is the discipline of the *army*. The commanding officer is no dictator issuing arbitrary orders at his own caprice. An officer who plays this part—and there have been such—soon stirs up a mutiny. The officer is the mouthpiece of the army. His commands are known to be necessary for the safety and success of the army, and his order is but the signal for each to do what he has already a mind to do. Similarly, if an officer punishes one of the men, there is behind him the force of the opinion of the rest. They know that if a man sleeps on his watch or neglects a serious duty the correction must be stern. The discipline of each is essential to the collective safety of all. A French officer not long ago was detected in supplying the enemy with plans of his country's forts. He was cashiered in the presence of his regiment, his sword broken, his regimental badges torn off, and he was dismissed as a civilian. The punishment is like a great disaster in nature, such as a stroke of lightning or an earthquake. The force behind is overwhelming. There is dignity in its irresistibleness. The army acts through its officers for its own good. The culprit is as a reed cottage in the path of an avalanche. On the contrary, in a small community such as the

family, there can be nothing really corresponding to military discipline, for, in the first place, the offender's own good is of primary importance; and secondly, there is no collective force or common interest seriously jeopardized by juvenile delinquencies—if, for instance, he swims a paper boat on some freshly-made soup—such as invest the discipline of the army with so much dignity.

The child, again, is not such an inconsiderable item in a family as a soldier in the army, when either member is compared with its respective whole. It appears, then, that it does matter very much in what spirit and by what means obedience is enforced among young children, for upon these things depends the conception which children, when they are grown up, will have of law and of their duty to the state and their country. If obedience is based on force alone, they will grow up with the idea that the state is as a policeman regulating traffic in a crowded thoroughfare, an officer who is more respected than loved for this office. Law will be the dictatorial command of a superior, and obeyed mainly because that superior, be the superior one or many, has power to enforce the dictates of his or their caprice. A wise parent will early implant in the mind of the child that he gives an order not out of pure self-will, but in respect to some higher principle which controls his action. The captain of a training ship, which had caught fire, stopped a panic-stricken cadet who was hurrying over the ship's side as though he were the only person to be rescued, with the remark—"That is not the way at sea, my lad; fall into your place". There can be

no common life, whether in nursery, or school-room, or home, or town, or country, without the observance of certain rules of conduct, and even young children may soon be taught to feel this before they understand it. They may be taught "this is our way here", or "this is not our way here". The child must doubtless learn to do many things in response to his parents' plain order, "I tell you to do it"; but by judicious use of occasion he may be made to feel that law is not his parents' word, and that behind the order there is something more than chance or the wish of the moment, something which is general in its application, and equally applying to all, and certain. The child may be made to feel that he has a better self and a worse self, and that the parent is by his dictates helping the child's better self against his worse, and even in giving his command obeying the dictates of a command himself.

A curious instance of this perception of a double self in a little child may be found in that charming book, *W. V.: Her Book* (Isbister). "We lowly folk dine before most people think of lunching, so dinner was ready when we arrived home. Now as decorum at table is one of the cardinal virtues, W. V. dines by proxy. It is her charming young friend Gladys who gives us the pleasure of her company. It is strange how many things this bewildering daughter of mine can do as Gladys, which she cannot possibly accomplish as W. V. W. V. is unruly, a chatterbox, careless, or at least forgetful of the elegancies of the social board; whereas Gladys is a model of manners, an angel in

a bib. W. V. cannot eat crusts, and as for porridge, 'I am surprised that your little girl does not like porridge. It is so good for her.'" What we want is, that boys as they grow up to manhood should feel that law is not what is commanded by the school, college, club, regiment, association, or country to which they belong, but that these institutions enforce what is law, that is, practice and customs actually approved by the bulk of the members, for where this is not the case, no constitution can long hang together. The spirit of Tom Brown, in which the natural and proper attitude of every healthy schoolboy is assumed to be one of opposition to the school authorities, cannot be really sound.

Perhaps I may appear to enunciate a paradox, but it seems to me far more important that a child should grow up with a respect for authority, than that he should be reduced to such mechanical obedience to orders as is indispensable in an army if it is to be a perfect fighting instrument. It is not always that the directest road is the shortest way home, and the prompt response to orders which may be secured by the domestic martinet may be the foundation of a character which develops into libertinism. An apparent failure to secure momentary obedience may not in the end spoil the child, if there is a consistent and uninterrupted effort to inspire the child with a love for the sweet reasonableness which is far removed from opposition to authority. As with nations, so with nurseries; our aims should be to narrow the domain of mere force as the governing factor, and

to substitute a love of order and abhorrence of what is mean, and cruel, and vile, and a ceaseless devotion to justice and mansuetude. It may be as Xenophon says, they who secure willing and cheerful obedience are possessed of a divine gift, and that this is incommunicable and mysterious, and that for most people in authority nothing is left but the exercise of despotic power over the will, and that kind of life which he compares to the torments of hell.

But most virtues thus exalted as superhuman are really of the simplest and plainest, and nearest to man, in short, most human. The secret of the success in command is unselfishness and consideration for others. A command, as I have said, implies two people, one to give and one to receive. If he who gives an order can always put himself readily into the position of him who is to receive it, and never issues an order which he would not himself be willing to accept as reasonable, and does not hesitate to give his order when it is reasonable, though he may be misunderstood for the moment, and occasionally make mistakes, yet in the end without any mystery he will rule with divine authority, and escape the terrors of Tantalus in his second life always dreading a second death.

In conclusion, I will briefly resume the substance of my remarks. The foundation of the habit of obedience is muscular training which leads to the prompt response of the muscles to the will. The most striking example of such training, and the results of it, are seen in military drill, and examples have been given from actual warfare in which the

muscles of the soldier obeyed the force of habit under circumstances which might overpower reason.

The kindergarten games and drills are well adapted for training the muscles of young children to prompt action. Military discipline, however, is distinguished from the law-abiding behaviour which is the foundation of civic life. Success amid the carnage of battle depends upon a blind habit of obedience, whereas in civic life obedience must be rational. In education we must begin with muscular training and muscular obedience, but we must not rest satisfied until we have instilled into the child a sense that law is not the arbitrary will of his elders, but rather the rule that is acted on by sensible people, and enforced by general consent. The formation of blind habits of obedience to the exclusion of reflection is not the training which leads to a just appreciation of law, and is not the way to build up the character of the young citizen. In all education there must be something austere, and even severe, but unless severity is combined with sympathy and consideration it is apt to develop a spirit of opposition to authority.

Those who are interested in the study of this subject should not fail to read (1) for its military aspect, Lieut. Stewart Murray's *Discipline* (Gale & Co., Aldershot, 2*s.* 6*d.*), and (2) for the legal aspect, the speech of the Lord Chancellor, Lord Russell of Killowen, to the Congress of the American Bar, at Saratoga Springs, in August, 1896. This great speech, reported in *The Times*, August 21st, 1896, deserves to be widely known in this country, as it explains the nature of law in

language which a layman can follow. So great was its effect at the time, that the vast audience, consisting of nearly 5000 persons, many of them lawyers, who are not given to sentiment, arose spontaneously to their feet at its conclusion, and cheered vociferously for a quarter of an hour.

LORD COLLINGWOOD'S THEORY AND PRACTICE OF EDUCATION

THE British Empire has its base upon the water, and it is due to the dauntless trio, Jervis, Nelson, and Collingwood, that India, Australia, and Canada are under the English instead of the French flag. Jervis made the British fleet, which had dissolved into groups of mutinous ships owing to shameful mismanagement. Jervis had the iron strength of will and intellect which reorganized a corrupt system and provided Nelson with an armament which his genius rendered invincible. "Jervis", said Dr. Busby, "made Nelson, he made him a greater seaman than himself, and then did not envy him." This is a fine remark, and indeed it is hardly possible even to speak of any of these three men without our language and thoughts rising to an elevation above the common and ordinary level of social intercourse. Collingwood was distinguished by his superior education, his love of study, his contempt for display, and the depth of his religious feeling. While to Nelson fell the lot of the most glorious death that man can die—the death of the hero on the field of victory, Collingwood's fate was to drag out a weary, overworked, and overstrained existence, longing for rest, and home, and wife and children, but determined to cling to active life so long as his country required his services. "What", he

writes to his brother-in-law, Mr. J. E. Blackett, in 1793, May Day, "should I suffer in this convulsion of nations, this general call of Englishmen to the standard of their country, should I be without occupation? a miserable creature! While it is England let me keep my place in the front of the battle." And this determination Collingwood carried out. Of fifty years' service in the navy forty-four were passed in active employment abroad. On one occasion he kept the sea for the almost incredible space of twenty-two months without dropping anchor. This was at a time when a three months' absence from port was held to be a severe and unusual strain on the health and perseverance of the crew. It was his character and superior education, and study of education and its kindred study of occupation in daily life, which made possible to Collingwood such an unparalleled achievement.

Two years before his death he sends his picture to Lady Collingwood, painted by an artist who was reckoned the most eminent in Sicily. "I am sorry", he says, "to learn my picture was not an agreeable surprise. You expected to find me a smooth-skinned, clear-complexioned gentleman such as I was when I left home, dressed in the newest taste, and like the fine people who live gay lives ashore. Alas! it is far otherwise with us. The painter was thought to have flattered me much; that lump under my chin was but the loose skin from which the flesh has shrunk away: my face is red, yet not with the effect of wine, but of burning suns and boisterous winds; and my eyes,

which were once dark and bright, are now faded and dim. The painter represented me as I am; not as I once was. It is time and toil that have worked the change, and not his brush."

For it was not merely his ceaseless military occupation that wore him out. His correspondence was immense, and so highly esteemed was his judgment that he was consulted from all quarters, and on all occasions, and on a great variety of questions. His counsel was in demand, not only respecting military and naval affairs, but also in matters of general policy and even of trade. His death was due to the effects of long-continued confinement on board ship and constant bending over his desk. I think, before I conclude, you will agree with me that his views upon the subject of education are worth pondering over by the thoughtful, even after the interval of a century.

He was by nature and education a man of cultivated and refined taste, and of great simplicity of character. He united great intellectual power with great amiability, and these two gifts are rarely united in a man. His occupations at home were reading, especially works on history, from which it was his habit to compose well-written abridgments. His recreations were drawing and cultivating his garden at Morpeth, on the banks of the limpid stream of Wansbeck. A brother admiral, who had sought him through the garden in vain, at last discovered him with his gardener, old Scott, often mentioned in his correspondence, to whom he was much attached, in the bottom of a deep trench which they were busily occupied in digging. His

affection for his wife and children is expressed in his letters to Lady Collingwood in a most pathetic way, and though long withheld by a sense of public duty from returning home, he endeavoured in the midst of his perpetual contest with the elements, with the enemy, and with his own seamen, whose dispositions were as boisterous and untractable as the Atlantic storm, to guide the education of his two little girls by correspondence. In various letters he deals with the training of both boys and girls, and the opinion of so remarkable a man and so successful an administrator and disciplinarian is of the highest interest and value. He never preached what he did not practise, and if it be asked what was the cause of his success in keeping his crew at sea for such a length of time without sickness, the answer can be readily given. No society in the world of equal extent was so healthy as his flagship. She had usually 800 men, and though on one occasion remained at sea more than a year and a half without going into port, during the whole of that time she never had more than six, and generally only four, on the sick list. Now for the explanation of this phenomenal achievement. "My wits", he writes, "are ever at work to keep my people employed, both for health's sake and to save them from mischief. We have lately been making musical instruments, and have now a very good band. Every moonlight night the sailors dance, and there seems as much mirth and festivity as if we were in Wapping itself."

Lord Collingwood was a saint, but he was human, and not a Puritan. Occupation of the

right kind was the key-note of his educational system, and it seems the safest and most practical for all engaged in education. For himself, he writes, "when wild war's deadly blast is blown and gentle peace" returns, and he can honourably retire from the sea—a fond hope destined never to be fulfilled—"I must endeavour to find some employment, which, having at least the show of business, may keep my mind engaged and prevent that languor to which from constitution I am more subject than other people, but which never intrudes upon my full occupation". "It has always been my maxim", he writes, "to engage and occupy my men, and to take such care for them that they should have nothing to think of for themselves beyond the current business of the day."

So, too, he writes to his wife: "I beseech you to keep my dearest girls constantly employed, and make them read to you, not trifles, but history, in the manner we used to do in the winter evenings—blessed evenings indeed! The human mind will improve itself in action, but grows dull and torpid when left to slumber. I believe even stupidity itself may be cultivated."

Another cause of Lord Collingwood's success in maintaining the health of his crew was his attention to detail and knowledge of sanitary matters beyond his time. He took great care to ventilate his ship and the hammocks of the men, by creating as much circulation of air below as possible and keeping their quarters dry, rarely permitting scrubbing between decks. Thus, in addition to attention to diet and amusement, he kept his crew in spirits,

and as they were assured of justice, kindness, and comfort, it is no wonder they knew him under the name of the "Sailors' Friend", and that many a gallows-bird with which our ships were then manned spoke of him as "father to the men".

Lord St. Vincent, in putting down the spirit of mutiny in the Mediterranean fleet, would draft the most ungovernable characters into Collingwood's ship. "Send them to Collingwood, and he will bring them to order." Yet, while other captains resorted to capital punishment, Collingwood seldom even inflicted corporal punishment. On one occasion a seaman was sent from the *Romulus*, a man who had pointed one of the forecastle guns, shotted to the muzzle, at the quarter-deck, and, standing by it with a match, threatened to fire on the officers unless he received a promise that no punishment should be inflicted upon him. On the man's arrival on board the *Excellent*, Collingwood, in the presence of many of the sailors, said to him with great sternness of manner: "I know your character well, but beware how you attempt to excite insubordination in this ship, for I have such confidence in my men that I am certain I shall hear in an hour of everything you are doing. If you behave well in future I will treat you like the rest, nor notice here what has happened on another ship; but if you endeavour to excite mutiny, mark me well, I will instantly head you up in a cask and throw you into the sea!" Under the treatment which he met in the *Excellent* this man became a good and obedient sailor, and never afterwards gave any cause of complaint.

As his experience in command and his knowledge

of the dispositions of men increased, his abhorrence of corporal punishment grew daily stronger, and in the latter part of his life more than a year often passed away without his having resorted to it. He used to tell his ship's company that he was determined the youngest midshipman should be obeyed as implicitly as himself, and that he would punish with severity any instance to the contrary. When a midshipman made a complaint he would order the man for punishment the next day, and in the interval, calling the boy down to him, would say, "In all probability the fault was yours; but whether it were or not, I am sure it would go to your heart to see a man old enough to be your father disgraced and punished on your account, and it will therefore give me a good opinion of your disposition if, when he is brought out, you ask for his pardon". The punishments which he substituted for the lash were various, such as watering the grog, or excluding the culprit from mess and employing him on every sort of extra duty. He never used discourteous or violent language. One of the secrets of his success in keeping order was the quickness and correctness of his eye, through which he was enabled in an instant to detect anything that was out of order. His reproofs on these occasions, though always short, were conveyed in the language of a gentleman and were deeply felt, so that he was considered by all to be a strict disciplinarian. He was extremely careful to avoid giving vexatious and harassing orders. When captain of the *Excellent* his ship was signalled to approach the Admiral's ship.

Captain Collingwood went on board, and found the order was merely for the *Excellent* to receive two bags of onions. "Bless me!" he exclaimed. "Is this the service, my Lord St. Vincent? is this the service, Sir Robert Calder? Has the *Excellent's* signal been made five or six times for two bags of onions? Man my boat, sir, and let us go on board again." Nor would he, though repeatedly pressed by Lord St. Vincent to stay dinner, accept the invitation, but refused and retired.

He complained to the Admiralty that some of the younger captains were in the habit of concealing by great severity their own unskilfulness and want of attention, beating the men into a state of insubordination, and that such vessels, though increasing the number, diminished the efficiency of the fleet. He complained that insubordination was due to the folly or the cruelty of those in command as much as to the perverseness of the men.

I have endeavoured to give some idea of Collingwood's theory and practice of discipline, because this subject is the foundation of all sound education, and ignorance of it is the cause of half the failures. I pass on to his general views. "The education", he writes to his daughter, "of a lady, and indeed of a gentleman too, may be divided into three parts. The first is the cultivation of the mind, that they may have a knowledge of right and wrong, and acquire a habit of doing acts of virtue and honour. By reading History you will perceive the high estimation in which the memories of good people are held, and the contempt and disgust which are affixed to the base, whatever their rank

in life. The second part of education is to acquire a competent knowledge how to manage your affairs, whatever they may happen to be; to know how to direct the economy of your house, and to keep exact accounts of everything which concerns you. Whoever cannot do this must be dependent on somebody else, and those who are dependent on another cannot be perfectly at their ease. Skill should be attained in Arithmetic, which, independently of its great use to everybody in every condition of life, is one of the most curious and entertaining sciences that can be conceived. The third part is to practise those manners and that address which will recommend you to strangers. Boldness and forwardness are disgusting, but shyness and shrinking from conversation with those with whom you ought to associate are also repulsive and unbecoming. There are many hours in every person's life which are not spent in anything important, but it is necessary that they should not be spent idly. Music and dancing are intended to fill up the hours of leisure. Nothing wearies me more than to see a young lady at home sitting with her arms across or twirling her thumbs for want of something to do. Poor thing! I always pity her; for I am sure her head is empty, and that she has not the sense even to devise the means of pleasing herself."

It is perhaps hard to find in the English language a more admirable description of a cultivated person than in the following letter:—

"Let me, my dearest child, impress upon you the importance of temperate conduct and sweet-

ness of manner to all people, on all occasions. It does not follow you are to agree with every ill-judging person, but after showing them your reason for dissenting from their opinion, your argument and opposition to it should not be tinctured with anything offensive. Never forget for one moment that you are a gentlewoman, and all your words and all your actions should mark you gentle. Next for accomplishments. No sportsman ever hits a partridge without aiming at it, and skill is acquired by repeated attempts. It is the same thing in every art; unless you aim at perfection you will never attain it. Never, therefore, do anything with indifference. Whether it be to mend a rent in your garment, or finish the most delicate piece of art, endeavour to do it as perfectly as possible. When you write a letter, give it your greatest care that it may be perfect in all its parts as you can make it. Let the subject be sense, expressed in the most plain, intelligible, and elegant manner that you are capable of. If in a familiar epistle you should be playful and jocular, guard carefully that your wit be not sharp so as to give pain to any person, and before you write a sentence examine it, even the words of which it is composed, that there be nothing vulgar or inelegant in them. Remember that your letter is the picture of your brains, and those whose brains are a compound of folly, nonsense, and impertinence are to blame to exhibit them to the contempt of the world and the pity of their friends."

Looking to the subjects of instruction, Lord Collingwood writes: "I hope my girls will write

a French letter every day to me or their mother. I should like them to be taught Spanish, which is the most elegant language in Europe and very easy. I would have them taught geometry; it expands the mind more to the knowledge of all things in Nature, and better teaches to distinguish between truths and such things as have the appearance of being truths, yet are not, than any other. To inspire them with a love of everything that is honourable and virtuous, though in rags, and with contempt for vanity in embroidery, is the way to make them the darlings of my heart.

"As to reading, it requires a careful selection of books, nor should they ever have access to two at the same time, but when a subject is begun it should be finished before anything else is undertaken. How would it enlarge their mind if they could acquire a sufficient knowledge of mathematics and astronomy to give them an idea of the beauty and wonders of the creation. I am persuaded that the generality of people, and particularly fine ladies, only adore God because they are told that it is proper and the fashion to go to church; but I would have my girls gain such knowledge of the works of creation that they may have a fixed idea of the nature of that Being who could be the Author of such a world. Whenever they have that, nothing on this side the moon will give them much uneasiness of mind. I do not mean that they should be Stoics, or want common feelings for the sufferings that flesh is heir to, but they would then have a source of consolation for the worst that could happen."

He laid great stress on the value of keeping a diary, and when his daughters set out for London in order to be presented at Court after their father's promotion to the peerage, he writes to his wife: "I wish that in these journeys the education of our children may not stop; but that on the road they may study the geography of that part of England through which they travel, and keep a regular journal, not of what they eat and drink, but of the nature of the country, its appearance, its produce, and some gay description of the manners of the inhabitants. I hope you will take your time in town, and show my girls everything curious. I am sure that you will visit the tomb of my dear friend. Alas the day that he had a tomb!

"Do not let our girls be made fine ladies; but give them a knowledge of the world which they have to live in, that they may take care of themselves when you and I are in heaven. They must do everything for themselves, and never read novels, but history, essays, travels, and Shakspere. What they call books for young persons are nonsense. They should frequently read aloud, and endeavour to preserve the natural tone of voice, as if they were speaking on the subject without a book. Nothing can be more absurd than altering the voice to a disagreeable and monotonous drawl because what they say is taken from a book. The memory should be strengthened by getting by heart such speeches and noble sentiments from Shakspere or Roman history as deserve to be imprinted on the mind."

Lord Collingwood's objection to novels is thus expressed: "Above all things keep novels out of their reach. They are the corrupters of tender minds, they exercise the imagination instead of the judgment, make them all desire to become the Julias and Cecilias of romance, and turn their heads before they are enabled to distinguish truth from fictions merely devised for entertainment. When they have passed their climacteric it will be time enough to begin novels." In another place he urges his daughters to study geography, and whenever there are any particular events happening, to examine the map and see where they took place. "You are", he tells them, "at a period of life when the foundation of knowledge has to be laid, and of those manners and modes of thinking which distinguish gentlewomen from Miss Nothings. A good woman has great and important duties to do in the world, and will always be in danger of doing them ill unless she have acquired knowledge. Never do anything that can denote an angry mind; for although everybody is born with a certain degree of passion, and will sometimes from untoward circumstances feel its operation and be what is called out of humour, yet a sensible man or woman will not allow it to be discovered. Check it and restrain it, and never make any determination until you find it has entirely subsided; and never say anything that you may afterwards wish unsaid."

Again he writes to his girls: "It is exactly at your age that much pains should be taken; for whatever knowledge you acquire now will last

you all your lives. The impression which is made on young minds is so strong that it never wears out; whereas everybody knows how difficult it is to make an old snuff-taking lady comprehend anything beyond pam or spadille. Such persons hang very heavy on society. Remember, gentle manners are the first grace which a lady can possess. Whether she differ in her opinion from others or be of the same sentiment, her expression should be equally mild. A positive contradiction is vulgar and ill-bred."

I have dealt with Lord Collingwood's views of the education of girls, and I do not think the newest of new High Schools have much to add to his principles. It remains to give his ideas about the education of boys.

He writes to Mrs. Hall: "You have now three boys, and I hope they will live to make you very happy when you are an old woman. But let me tell you, the chance is very much against you unless you are for ever on your guard. The temper and disposition of most people are formed before they are seven years old, and the common cause of badness is the too great indulgence and mistaken fondness which the affection of a parent finds it difficult to veil, though the happiness of the child depends upon it. Your measures must be systematic; whenever they do wrong, never omit to reprove them firmly but with gentleness. Always speak to them in a style and language rather superior to their years. Proper words are as easily learned as improper ones. When they do well and deserve commendation, bestow it lavishly.

Let the feelings of your heart flow from your eyes and tongue; and they will never forget the effect which their good behaviour has upon their mother, and this at an earlier time of life than is generally thought."

He objects to too early specialization for the career of an officer. Instead of going too early to sea, he suggests the following plan:—"I would recommend them to send their young son to a good mathematical school, and teach him to be perfect in French and Spanish or Italian; and if he spend two years in hard study he will be better qualified at the end than if he came at once to sea. If parents were to see how many of their chickens go to ruin by being sent too early abroad, they would not be so anxious about it."

What Lord Collingwood desiderated most of all was that his lieutenants should have learnt to work hard and to be observant. He thus pours contempt on the youth who cannot work. "I am told the boy's want of spirits is owing to the loss of his time when he was in England, which is a subject that need give his mother no concern, for if he takes no more pains in his profession than he has done he will not be qualified for a lieutenant in sixteen years, and I should be sorry to put the safety of a ship and the lives of the men into such hands. He is no more use here as an officer than Bounce [Lord Collingwood's old dog], and not near so entertaining. She writes as if she expected that he is to be a lieutenant as soon as he has served six years, but that is a mistaken fancy, and the loss of his time is while he is at sea. He is

living on the Navy and not serving in it. If he goes, he may stay, for I have no notion of people making the service a mere convenience for themselves as if it were a public establishment for loungers."

Of another youth he says, "Young ——— has returned to me, but I have little hope of his being a sailor. He does not take notice of anything nor any active part in his business; and yet I suppose when he has dawdled in a ship for six years he will think himself very ill-used if he is not made a lieutenant. Offices in the Navy are now made the provision for all sorts of idle people."

Lord Collingwood recommends the following course for young midshipmen. "If his father intended him for the sea he should have been put to a mathematical school when twelve years old. Boys make little progress in a ship without being well practised in navigation, and fifteen is too old to begin, for very few take well to the sea at that age. If, however, Mr. ——— is determined, he should lose no further time, but have his son taught trigonometry perfectly before he begins navigation. If the boy has any taste for drawing it will be a great advantage to him and should be encouraged."

Again he writes of another youth: "I would recommend his father taking him home and putting him to a good mathematical school, perfecting him under his own eye in navigation, astronomy, mechanics, and fortifications. He knows enough now of ships to make the application of what he learns easy to him, and when his head is well stocked he will be able to find employment and amusement without having recourse to company which is as

often bad as good. He has spirit enough to make a good officer and an honourable man, but he must make his studies a business to which he must be entirely devoted. Drawing is the best kind of recreation. If he be sent immediately to sea he may become a good sailor, but not qualified to fill the higher offices of his profession, or to make his way in them."

Lord Collingwood's views upon education merit the attention of all who are interested in the subject, but they seem to possess a special value at the present time when the newspapers are full of letters discussing the training of naval officers.

GAIETY IN EDUCATION

OR

A STUDY IN AUGUSTINE AND CALVIN

FEW will deny in these days that gaiety has a leading place in education. The belief in gaiety as an important factor in the training of a child has not always prevailed. A joyless childhood has been, and perhaps occasionally is still, the lot of many children. This is apparent in many biographies, and is confirmed by common observation. There have always been some persons who would start children on the voyage of life by reading to them a funeral service. They had better cheer the little craft as it clears the harbour bar, because the heavens will grow black often enough before the other shore is reached, and abundance of animal spirit is needed to weather the storms of life in safety.

Although our mental states are closely dependent upon physical health, brief experience is enough to demonstrate the frequent triumph of a cheerful mind over great bodily infirmity; and among mysteries there is none more unaccountable than the power possessed by the human spirit of continuing strong, healthy, and creative in an ailing, crazy, and rickety frame. The merriest in a group of people is often he who has the least cause for mirth and greatest excuse for depression of spirit. Gaiety of heart is of course often an advantage of

natural disposition; but, like most other virtues, it is for average human beings largely a matter of training.

It has always been the view of some, that children have by nature too much animal spirit, and that, so far from cultivation, what is needed is continuous repression. Disinterested spectators for the most part disapprove such repression, and delinquencies in later life are often justified or excused by the remark that "as children, the delinquents were kept in hand very tightly at home", "fast bind, fast find", or similar, more or less, sympathetic comments. A joyless childhood will seldom be followed by a frank and straightforward manhood. Most children are by nature inclined to be gay, and their gaiety approves itself to common sense. What cause, then, leads some parents and guardians to frustrate nature? There are some even who agree with a certain farmer's advice about boys: "Whenever you see a boy, beat him. If he is not naughty, he is going to be." Some grown persons who are not sympathetic become easily wearied with the mirth of a child, which bubbles over in froth and clamour and noisy activity. Other people, again, note how quickly in some children mirth becomes over-excitement, and is followed by an inevitable reaction of depression, and may fear this tidal flow of animal spirits as injurious to mind and body.

Other people, again, knowing that in most cases a child's feelings towards his parents must be a mixture of love and fear, find it easier to work on the fears than on the affections of their offspring.

Hence they are a little afraid of laughter when he comes "holding both his sides". Laughter seems to them the mutiny of the flesh against the sovereignty of reason. Yet if we judge from the effects on the body of a hearty laugh, we must own that there is medicine in it. The biologist tells us that "laughter is a series of short expirations, more or less accompanied with noise, depending chiefly on vigorous contractions of the diaphragm, and accompanied by involuntary contractions of the facial muscles, especially the zygomatic".

Most animals can make a noise of some kind, but only men can laugh. From a physical point of view, doubtless the definition which is given above covers all kinds of laughter; but it is probably impossible to bring within the limits of a definition all its psychological aspects, often as this has been attempted, from the days of Aristotle until now.

It has been said, with some show of truth, that the character of the laugher is apparent in the vowel sound which is audible in his laugh. For instance, laughter in "a" (or "a" sounded as in father), "Ha, ha, ha", marks a choleric temperament like that of Sir Anthony Absolute. Laughter in "o" is the sign of a generous, hearty, and sanguine nature. Then there is the melancholy laugh and the nervous laugh, which are vocalized respectively with the sound of "a" in late, and "e". Lastly, there is the laugh of rogues, hypocrites, and cynics, where the vowel sound is half smothered, and may be expressed as "u", spoken like the French diphthong "eu".

Some poisons, such as belladonna, were said to cause artificial laughter, by contracting the muscles mechanically, and as these toxic plants grew in Sardinia, men spoke of a forced laugh or grin as Sardonic. This paper deals only with laughter which is an expression of mirth. Children should have only to do with laughter in "o". The expression of their mirth should be round and complete and full-breathed. No feeling of anger or sorrow or hyprocrisy should check the full expression of their vocal chords. Then we can say with Rabelais,

"Oh sweet and heavenly sound to hear them laugh".

Laughter is really a necessary factor in physical education, and is of no less consequence in the other two branches of education described respectively as intellectual and moral training, for physiologists tell us that laughter is conducive to health, because it facilitates digestion, strengthens the frame, and is a remedy against feelings of fatigue and weariness of spirit. Laughter helps both heart and lungs to do their duty better, and tends to improve circulation and digestion. Food becomes more nourishing under its influence, and the blood is better purified, for the blood of the laugher has no time to linger in the great organs, as it loves to do in persons of morose temperament, but, as under the spell of Mercury (the god, I mean, and not the drug), dances forward, "and runs trickling up and down the veins. Such virtue hath that idiot laughter."

But laughter playing such a part in physical

training, it would be strange if there were nothing corresponding to these benefits in its effect on the child's moral welfare, as though it were only medicine for the body. What sort of a child is it that never laughs? It is either one who has no vital energy to spare and requires all his little stock of vital force to keep body and soul together, or else one who morbidly concentrates all his physical strength upon particular and limited spheres of reflection; a brooding child, whose book of life is edited without the lighter chapters, which so much enliven the rest of the pages; an early genius, or perhaps a budding lunatic. A sad child is a sad specimen of childhood, for the child who seldom laughs is apt to brood over small social troubles such as must arise from daily intercourse with his companions, and also over mental perplexities which are suggested to him unwittingly, through remarks which are made in his presence by parents, teachers, and others, or by chance conversation and general reading. The child who never laughs is apt to be morose, sullen, and unforgiving, remembering wrong and planning little schemes of revenge.

Yet laughter is the right way to allay the natural irritation arising from small acts of injustice, whether intentional or otherwise, which throw frequent shadows across the path of life, from the font to the lychgate. The worst lesson which a child can learn from the teaching of the world is the laugh of the cynic, because it tends to make trifles of things serious. On the other hand, one of the best of lessons is the mirth of Mark Tapley, which makes trifles of serious troubles, and not merely

grins and bears, but bears with lightness of humour.

I sometimes think English people find it harder to get over small annoyances with levity than French people do. I once saw a party of English people in holiday attire, approach incautiously too near a llama in the Zoological Gardens. Of course the gentle creature spit at them in his peculiar way, and spoilt their smart clothes. They too went away quite spoilt in temper for the rest of the afternoon. Soon after, a still smarter party of French people were treated by the llama with the same attention, and instead of exhibiting any sign of irritation the ladies laughed till the cause for annoyance was completely forgotten.

The spirit of fun arises in a child in a different way from that in which it originates in grown-up people. When we cease to be children, what makes us laugh is amusing thoughts. While we are children, what amuses us is amusing sights. Of fun in the child we may say "it is engendered in the eye, and is by gazing fed". A young schoolboy may get so far as to enjoy what Sydney Smith allowed to be the lowest kind of wit, claiming for it in consequence the right to be called the foundation of all wit, namely, a pun; but there is a previous stage, where mirth is born only of unexpected turns in things visible. If the wind carries off a man's hat, and he has to chase the same down the street, the small boy will have no compassion for the misfortune. He simply laughs without constraint. If a pompous alderman, or policeman in his solemn pacing down the pavement, happens to slip and fall, so that instead of walking onwards he

sits on a flag-stone, the small boy will laugh till tears roll down his cheeks, not that he is amused because someone is in trouble, but because the unexpected transition from a position of assured superiority to one of little dignity tickles the boy's fancy.

We must not be disappointed if young children's jokes seem to us, of riper years, no laughing matter; nor if we find, on the other hand, that what amuses us bores them to death. It is wise to look at the outside world as much as possible from their point of view. After all, much good may be learnt, even in riper years, by looking at some things with the eyes of a child. A sense of fun would save many a dignitary from attacks of excessive dignity. Biography shows that the more childlike the man, often the more manlike his conduct. The fact is, a child needs a large reserve of gaiety. His life is apt to appear to him a constant succession of small checks to his wishes, which he finds opposed either by the constitution of things, as when he cries for the moon, or the will of his elders, as when he is forbidden to sit up till midnight. If he cannot take all these small hindrances to contentment laughing, he will be liable to pass a rather unhappy time in childhood. How then, once more, has laughter come to be looked upon by some with suspicion? Clemens of Alexandria, for instance, wrote that laughter does not become a Christian; and the second Council of Carthage uttered anathema on jokes which move laughter (*Verba joculatoria risum moventia*). The Preacher, too, deprecated mirth—"Sorrow is better than

laughter, for as the crackling of thorns under a pot, so is the laughter of fools".

Of course laughter forms no exception to human endowments. It is liable to abuse. Can anything be rational which cannot be used irrationally? Laughter weakens the will for the moment, and therefore in bad company it is well avoided. But because a soldier is prudent who wears his armour in the midst of the enemy, shall he never take it off even among friends?

Laughter, again, as a mere expression of coarse sensuality cannot be defended: such laughter is unworthy of a Christian. There is, too, a merriment which loosens moral fibre, as laughter at vice, or laughter at other people's infirmities, or at the suffering of animals. There is, too, a peculiarly hateful laughter arising from a sense of physical or intellectual superiority,—the "insolens lætitia" or "hubris" of the ancient Romans and Greeks.

But, after all, though life is a thorn-bush there are roses on it. I suppose the Calvinists have, since the Reformation period, been among those who have brought up youth after the strictest methods. They held mirth in suspicion. There is much in the life of a modern child which to an old Calvinist would have appeared wrong, because he would have thought it distracting and deleterious to concentration and simplicity.

The Calvinists loved to simplify life. They aimed, as it were, at dignity of outline, such as is seen in a fine building when viewed at a distance, rather than at the infinite grace of workmanship, in minor details, which crowd on the sight when

the spectator approaches nearer. Music, for instance, and dancing and drawing, and the love of colour and form and harmonious sound, appeared to them dangerous occupations for children. Such delights seemed to be distracting, and at any rate superfluous. The theatre, the novel, and the poem, are likely, they thought, to lead the mind away from the main purpose of life and the "chief end of man". It was different in the Mediæval Church. This absence of gaiety was no part of the precept or practice of the church. The impression which many persons receive from a Gothic cathedral is one of gloom and sadness. For myself I am more struck by the revelation of sympathy with the varied exuberance of life which I find expressed there. It is true that the focus of all the design is centred on the Cross and the solemnity of the Passion, but in minor details there is an evident determination to assimilate the world as a whole and take it as it is, the evil with the good. Every column is covered with fruit or foliage, and the wall spaces are filled with carvings of scenes of harvest or vintage, or other common pursuits of mankind. Quaint birds and animals peep out from among the leaves, and even human frailties receive their share of the artist's attention, while types of laughing faces are frequent enough, not to mention endless grotesques which move to merriment. In the present day we seem to be somewhat overoppressed by the mystery of pain, while in those days the sense of this unfathomable mystery was tempered by a rich feeling of sympathy with the abundant manifestations of joy in creation. Chris-

tendom would then have understood Kant's view, that children must be accustomed to unrestrained laughter, because mirth stamps a merry look on the face, and by degrees stamps itself also on the mind and leads to a disposition to friendliness, gaiety, and benevolence. At the present day, perhaps, in the mystery of things, joy, not pain, is the greatest. We seem nowadays so familiar with the sense of effort in creation and the struggle for existence, and the failures in life's struggle, that we forget the other scenes in life's drama. Many seem to be so depressed as to feel that sorrow is the only fact in the order of things. The only text all seem to take to heart is, "The whole creation groaneth and travaileth together in pain". The fact is, children in many cases require a training in gaiety of spirit as much as in the development of other faculties. "Fast bind, fast find", as Hood wittily put it. The influence of the gloomy genius of Mr. Calvin has been the wreck of many a young person, although in those that survived the effect of it, how strong was their character, how determined in purpose, how tenacious in discouragement, and how obstinate in opposition!

Regarding this type of character everyone must feel some respect for the rigid spirit which would develop the nature of the child by repression, and secure concentration of the light of life by cutting off all the side rays.

In the present day a wholly different conception of training lies at the base of our ideas of education. Our desire now is to train the best faculties which the child possesses, and as many of them as possible,

in a harmonious way. No greater misfortune, I think, can befall a child who has a gift for music or drawing or sculpture, than to miss the chance of cultivating and improving his talent. Yet the influence of Calvin has spread widely and deeply. Now there is no spiritual movement of importance which has not some truth in it commensurate with its success and popular acceptance. There is, so far as I can see, really nothing in Calvin himself which necessarily leads to suppression of faculties in children. I will quote what Calvin did say about intercalating periods of solemn thoughtful repose in the routine of life, his views namely on the Sabbath:—

"Does the Fourth Commandment order us to work on six days that we may rest on the seventh?

"Not exactly, but in handing over to men six days to work, it excepts the seventh that it may be devoted to repose.

"Does it forbid all labour on the seventh day?

"This commandment has a special and peculiar bearing. The observance of a day of rest was part of the Jewish law, and as such was abrogated by Christ's advent.

"Had then this commandment a special application to the Jews alone, so that it was temporary and transient?

"Yes, in so far as it related to Jewish ceremonies.

"Is there then anything in the commandment beyond Jewish ceremony?

"It was given for three reasons.

"Name them.

"First, to show in a figure spiritual repose. Secondly, to maintain the constitution of the church. Thirdly, to lighten the lives of servants.

"(1) What do you understand by spiritual repose?

"We keep a holy day that God may work in us.

"How do we keep holy day?

"We crucify our flesh. That is, we give up our own will that we may be governed by the Spirit of God.

"Is it sufficient that we do this on the seventh day only?

"Nay, rather without ceasing. As we have once begun so we must continue to the end of our lives.

"Then why is a stated day set apart to show in a figure spiritual repose?

"It is not necessary that the truth should agree with the figure of it in every particular. It is enough if certain features of the truth are figured forth.

"Then why is the seventh day prescribed for the purpose rather than any other?

"The number VII is used in Scripture to denote perfection. It is therefore suited to denote perpetuity. At the same time it denotes that this spiritual rest commences only in this life, and will not be perfect till we migrate from the world.

"But what is the meaning of this that the Lord urges us to rest after His example?

"Having made an end of creating the world in six days, He devoted the seventh to the consideration of His work. To stimulate us to similar meditation He sets His example before us. For nothing is more desirable than that we should form ourselves after His image.

"(2) But should the meditation of the works of God be continuous, or is it enough that one day in seven should be devoted to that occupation?

"No; we should exercise ourselves in it day by day, but by reason of our weakness one day is specially set apart for the purpose. And this is the constitution of which I spoke.

"What then is the order to be observed on that day?

"People are to meet together to hear Christ's teaching, to join in public prayers, and to make public profession of their faith.

"(3) Now explain what you said about the Lord wishing to provide for the relief of all who are employed as servants.

"Some relaxation should be given to those who are not their own masters.

"This is necessary even for the maintenance of the constitution of the state; for where one day is set apart for rest, people accustom themselves to work during the remainder of the week.

"Now let us consider how far this commandment refers to us.

"As regards the ceremonial observance, since the truth and substance of it were in Christ, I say that it is abrogated.

"How?

"By virtue of His death the old man is crucified in us, and we are called to newness of life.

"Then what part of the commandment remains to apply to us?

"That we should not neglect the institutes which conduce to the spiritual constitution of the Church; especially that we should attend the holy meetings to hear God's word, to celebrate His mysteries, and to pray to Him, according to the ordinances.

"But does the figure convey nothing further to us?

"Yes it does. We must consider the substance of it. As we are grafted in the body of Christ, and made members of Him, we should cease from our own ordinary occupations and resign ourselves to the governance of God."

In these words Calvin endeavours to describe an element of seriousness which he would see included in every healthy life. I read in them nothing austere, much less pedantic. It is on record that on one occasion Calvin played bowls with his friends on Sunday, but the elders in Calvinistic families think it prudent to suppress this record.

I see nothing in Calvin's description of the Christian Truth, which he recognized as predigitated by the ceremonial law of the Jewish Sabbath, inconsistent with playing at bowls on Sunday, unless, indeed, playing at bowls were a man's ordinary

occupation. He would clearly not divide life into Sundays and week-days, as if, by a convenient division of labour, thoughts might be all secular during the week, and all religious on Sunday. I find in him, again, no sympathy with people who make a cross for themselves and then take a pride in believing that they are nobly bearing one sent by Providence. Calvin would encourage contemplation, and, that time might be found for it, desired rest from manual toil on Sundays. But the train of thought would control action instead of being wholly dependent on it. What people did on Sunday would be in harmony with their meditation, and what there was of constraint in Sunday occupation would follow from the temper natural to meditation. Calvin would hardly have expected that the mere negative conduct of withholding from this or that pastime, would of itself lead to spiritual meditation.

Let us suppose, for instance, that you want a little girl to feel aware that there is something in the world of greater consequence than dolls, her chief solace and joy. Suppose you commence by depriving her of that joy forcibly. Will that tend to elevate her thoughts? What you need to do is to suggest, by some means or other, ideas which will lead her, of her own accord, to forget her doll, or even put it away. Doubtless this is much more difficult than external constraint. But to empty the mind of one set of ideas is not to fill it with another. The supposition, that if you remove the doll, you will create a vacuum in the mind which can then be filled with what you please, seems to

evince ignorance of the way in which the mind works.

There is a kind of living and organic connection between the succession of thought, and it is no easy matter to change at will the current ideas in a child's mind. My own belief is, that if a child's head is full of some train of thought, or some object, and you wish to substitute something different, so far from suppressing the pre-existing thought or object, you had better commence with it as a base for your efforts. You want, for example, to talk about kind and unkind behaviour. The child plays with her doll. I should not remove the doll. I should deal with it as the child's companion, and pass through stories about it to stories of life, real or imaginative, and so to parables, till the lower is absorbed into higher imagination, and the common world in an ideal world. It is no wise method of training to deprive a child on Sunday of amusements and occupations which please him, unless you can substitute others which please him more. How can instruction be made attractive? Hardly, if the teacher undertakes it as an irksome task. If the lesson is annoying and wearisome to the teacher, it certainly will not be anything different to the learner.

Even serious subjects cannot be rightly dealt with among children without a certain amount of gaiety, and an exaggeration of seriousness in the teacher is instantly detected by the scholar. Children are genuine touchstones of pretence.

Plato remarks, "No study pursued under compulsion remains rooted in the memory; hence you

must train the children to their studies in a playful manner, and without any air of constraint".

Through this truth I am brought to St. Augustine. I have always been much impressed by his sympathy with the wrongs of children.

"I was not incompetent to study," he says, "but I did enjoy my games, and then I was punished by those who did no other than myself." "But", he continues, "the lighter occupations of grown-up people pass with them as business, while children are punished by their elders for similarly amusing themselves, and no one pities the children."

To me there is something remarkably instructive and suggestive in the contrast between St. Augustine and Calvin in their treatment of the significance of the Jewish Sabbath to Christians. The contrast is not due merely to the difference in character and temperament between the two men. I seem to feel a difference due to time and development and experience of many human generations.

There is in Calvin a certain practical sense. He feels the need of a discipline for the spirit as well as for the understanding. Even the spirit of pure religion he sees cannot be entirely free from the aid of conventional ordinances. The Jews substituted the letter for the spirit, and observance of conventional ceremonies did duty for justice, mercy, and righteousness.

The experience of many generations of Christians seemed to lead the most thoughtful men of the Reformation period to look back a little, and lean once again rather more heavily on the staff "Bands", and rather less on the staff "Beauty".

They were compelled to believe more in the regulation of daily life, and, figuratively speaking, to substitute a fixed and definite tithe in place of committing themselves unreservedly to the precept, "Give alms of all that thou hast".

I shall, perhaps, be more clearly understood if I describe St. Augustine's treatment of the Sabbath. He has what seems to modern ideas a curiously subtle and almost fanciful chain reasoning on its significance.

"Whatever a man finds to do," he writes, "if he does it in such a spirit that he expects to obtain earthly advantage, then he does it in the spirit of a hired workman, and therefore he does not observe the Sabbath; for the love towards God must be without the expectation of payment, and there is no Sabbath for the soul except in that which God loves. Eternal rest: there is none except in the love of God, who alone is eternal, and this alone is complete holiday and the spiritual sabbath of sabbaths. God laboured not for six days that He might rest on the seventh—that is a carnal idea.

"God made all things, and, behold, all was very good. And God rested on the seventh day from all the works which He did. Would you also rest? Then begin by doing works which are very good. Do you do what that holiday means; for holiday is the spiritual quiet of the heart. Quiet of the heart comes from the calm of a good conscience; therefore he keeps the true Sabbath who sins not. Let this be the instruction for those who are to observe the Sabbath: 'Thy service shall not be for

wages, for those who sin work for the wages of sin'."

St. Augustine thus draws a paradoxical but bold and original conclusion, that there is no rest for a sinner, because he is a hired workman receiving pay for his work. It seems to me that fully to realize and appreciate the height and depth of this conception needs the mind of a saint. St. Augustine describes a state of mind in which the desire to avoid error and the aspiration after right conduct will render exact conventional regulation of life no help, and possibly a hindrance.

In Calvin we seem to descend from this almost superhuman elevation of character to the practical man of religious sentiment who believes that nine people out of ten, apart from conventional arrangements for religious exercise, will neglect it altogether. He would seem to agree with Montalembert: "Il n'y a pas de religion sans culte; et il n'y a pas de culte sans Dimanche".

It was ordered in 1584 that one-half of all the people in every house above twelve years of age, not being sick or lawfully hindered, be at the beginning of every sermon every Sunday in the morning, and one from every house at the beginning of every sermon in the afternoon, of every Sunday and festival day, and likewise on every Wednesday, upon pain of 20*d.* on Sundays and 12*d.* on other days, and strictest orders were made for Sunday closure of tradesmen's shops.

Sunday lessons and occupations! How many people when grown up look back to them with a sense of disgust, as if they were a weekly drug

that turns the sickening memory! How many wrecked lives have been caused by irrational Sunday conventionalities! Yet God forbid that the English Sunday should ever be a day either of paid labour or noisy public holiday. There is no sin that I know of in making a noise, but generous youth will not be unwilling on Sunday to suppress the youthful tendency to noisy behaviour, feeling the greater pleasure of not disturbing other people who desire to be quiet. Perhaps, in return, people who want to be quiet on week-days will not be unwilling to recognize the sacrifice which youth thus makes to please them on Sundays, and, above all, will avoid the hypocrisy of pretending that their demand for peace is only for the good of youth, when it is really a thing agreeable and salutary chiefly to themselves. For life without gaiety is a cake without sugar, or, rather, it is unleavened bread.

INDIVIDUALISM IN EDUCATION

"The Mediæval Church fell because it undertook to do so much for men's souls that men felt they were losing consciousness that their souls after all were their own."—BISHOP CREIGHTON.

THERE is, perhaps, a not uncommon feeling that the older type of school in its curriculum did too little to provide for individual tastes, and there is also a feeling that class teaching is overdone. Children passing through large schools in large groups or classes lose, it is thought, their individuality, and, therefore, rather the opposite type of teaching should be aimed at, namely, that no two children should follow the same routine, and that individual teaching rather than class teaching should be the rule. Every individual bent of the child's mind should be sought out with scrupulous care and developed in the way that is most characteristic of him. Let children grow up all good, if possible, but at any rate let no two be quite alike. It is not the school, nor the class, nor the subject of instruction, but the individual child that the teacher is really concerned with. So much stress is laid on individuality by some writers.

What, then, is want of individuality? Is it when a person is not easily distinguishable from his companions? A hundred workhouse boys, for instance, are hardly to be distinguished one from another, at any rate by a stranger. When we speak of want of individuality in a boy, do we mean that he is one of a number all alike, resembling pebbles

on a beach, "the unnumbered pebbles by the surges idly chafed"? When we regard each pebble as a separate and handy thing for throwing at a mark, we think of it also as wanting in characteristic shape, since all alike are ground down by the surge to forms more or less spherical, and one stone is as good as another for our purpose. Are we, then, to find fault with a boy for wanting individuality because he acts and talks exactly like a hundred others, each as complete in their own way as himself? Or are we, again, to talk of a boy as wanting individuality, because in thought and action he is so much assimilated to his parents or teachers that his being seems merged in them and his thoughts seem mere repetition of theirs? Do we not say that an object has the greatest individuality when it is most unlike its own kind, say a crow with whitish feathers? We certainly say that an old apple-tree has individuality, when in its twisted, gnarled, and irregular stems and branches its own particular past history may be easily read.

Do we, however, speak of individuality in a boy who is quite unlike others, say, wears long hair and plays with a doll, or who doesn't see any use in a pocket-knife? Or do we after all rather call that individuality when a boy does the same as others, only in a different way, either better or worse? If the last view is true, then any character, however individual, has much in it that is common to it and others, and is not, therefore, an isolated human unit. When we complain of a school routine, that it tends to destroy individuality, we mean, probably, that it turns out boys all alike,

whether of a high quality, or of average capacity, or of a low tone. In such a case we ask are they all alike, because they all assimilate the tone and teaching of the school? But if a boy has been brought up at home, and is quite unlike average boys in important particulars, should we say that he has a marked individuality?

I think it no paradox to say that a boy goes to school to get rid of individuality, namely, that kind which is stamped upon him by home life in being unlike other boys. In losing, however, one kind of individuality, which is apt to be either anti-social or unserviceable, or at least what Dr. Johnson called "not clubbable", he really gains a new personality, which ought to be the old one, not abolished, but modified and intensified and improved.

If a boy takes with him to school no sense of individual responsibility, and if he is in none of his thoughts or actions other than imitative, subservient, receptive, and obedient, the character he will acquire at school will be just that which stamps the average boy at that school, good or bad as it may be. If he brings to school a feeling of responsibility and obeys and imitates with intelligence and reflection, his intercourse with boys and masters will not form a new and merely average character, nor will it abolish his old individuality, but rather enhance it.

A boy should learn at school the value of doing as others do, where nothing of consequence is involved in conventional practice. He should also learn to respect the individual opinions of others while maintaining his own, and learn the limits

between wilful and rational opposition. That which is awkward, boorish, graceless or shy, and eccentric should disappear under the influence of converse with other boys.

But the old-fashioned grammar-school performed its work very badly. The ways of the scholars were often unworthy of a gentleman, the course of studies was the same for all boys alike, and took no account of the varied occupations of life or the varied endowments of boys. After sixteen, most boys must, in these days, learn to make up their mind whether they will pursue a more literary or a more scientific training, and whether they intend to adopt a practical career or lead a life of study, and their instruction should (within limits) be varied accordingly. But a boy must learn to do as others do in many matters. How can the individuality of a boy, then, be respected at school? Judging from these considerations, it will be admitted that a negative answer must be given to the question: Can you make a boy most himself by leaving him alone and giving him particular private tuition? Individuality is better developed at school than at home, and no child can grow up strong in mind and body without interference.

Then comes the question: When should interference be recommended, and how far should it extend? Everyone can see the harm of false control, but all education implies control, and, in some form, compulsion. The reason why many people object to compulsory religion, compulsory morality, and compulsory learning, is, that such religion, virtue, and learning can hardly be distinguished in

reality and practice from the absence of them; yet no society can really exist without compulsion in some form. In a pack of wolves or wild animals with social instincts, the members who fail in their duty are destroyed by the rest, and in more complex human associations compulsion in some form or other is inevitably exercised. Yet freedom is often spoken of as a "natural" thing.

Poets seem to yearn after a freedom with which in their fancy they invest nature. "Follow nature," they seem to say, "she alone is free." Wordsworth wrote:—

> "How does the meadow flower its bloom unfold?
> Because the lovely little flower is free
> Down to its root, and in that freedom bold;
> And so the grandeur of the forest tree
> Comes not by casting in a formal mould,
> But from its own divine vitality".

Students of science, on the other hand, differ here from poets. What most impresses and often oppresses them is the prevalence of law in nature, and the whole progress of learning tends to force upon us the fact that in nature there is nothing capricious and nothing arbitrary or mutable. The wind which seemed so long to have a "liberal charter" is now, after years of patient research, known to blow in obedience to regular laws. It is only imperfect knowledge that leads us to think that growth of living matter is uncontrolled. The results of vitality are a compromise between internal and external forces. Neither child nor flower can grow up free from external force, but, of course, the force must be suited to its needs.

For there is a principle in the application of compulsion to human beings. There is a state of man which is neither slavery nor anarchy. It is wild nature that really lives in slavery, however free it may appear to poets. The principle for men is, that so far as possible the compulsion must be directed to setting free energy for good, which without it is impeded or wasted.

In each particular case it is impossible to say without much consideration whether compulsion is necessary or not. In itself, compulsion is not an evil. The mistaken application of it is most injurious. What makes compulsion unpopular is its abuse and not its use. Even in a game of football, if the boys do not compel each other to "play the game", they will get no game at all, and no pleasure in their aimless scrimmage.

It is easy to see that compulsion which prevents an immediate evil may, after a time, give rise to a crop of others, and that the evil may be increased by the remedy. The law, for instance, by which public-houses are closed on compulsion at a certain hour seems to have worked very well. The reason is, because it only exercises a little unobjectionable force in urging every ale-house politician and clubman in the direction he is really not unwilling to go, namely home, in decent time. It is asserted, however—probably with truth—that if, without abolishing the demand for what is sold in public-houses, you abolish public-houses altogether, your compulsory measure would lead to an immense consumption in private-houses, clubs, and the like; compulsion works well in one case and not in

another. Again, the English people like to rest on the seventh day, and machinery is therefore, by lying idle, often taxed or mulcted of one seventh of its use. Few people, however, object to the law which prohibits manufacture and trading on Sunday. The nation secures a day of rest by this compulsion. What would, however, be the effect of compelling everyone to go to church according to an old statute? The evil would far outweigh the good. Uniform practice in such a matter is another question.

All civilized nations now most wisely insist on all children attending school. The attendance at school is a matter of discipline, and it is an indispensable part of the training of the ordinary family. Except in rare cases, the family training which is the basis of all education needs the supplement of a good school where the motives and movements of human life may play upon the child's growing organism more freely than they can in the narrow sphere of home, and yet not without some check. The methods of instruction and the course of studies, however, remained too long stereotyped, the successful scholar becoming in the next generation the school teacher, and repeating over again with no significant alteration precisely the same routine which had answered his purpose, in spite of the fact that manufacture, trade, and even professions keep on changing to suit the growing complexity of modern life. An Elizabethan curriculum consisting of ancient languages is imperfectly adapted to the time in which we live, and yet the *vis inertiæ* that has to be overcome before

any important alteration can be made is so great, that probably private schools will be the first to inaugurate them. Probably in the end the efforts of private schoolmasters will create an opinion so favourable to a new type of school, that the old grammar-school routine will be seriously modified, and in time a boy's career at school will be very unlike the excessive book cram at a German gymnasium on the one hand, or the one-sided physical development of a mere athlete, such as characterizes the rather low aims of some English public schools. "How", said George Kingsley to the South Sea Islander, "do you make your living?" "Oh, we! we play games." More clearly than before it is seen to be the teacher's business to seek out the natural endowments of each boy, but inasmuch as in most cases these are of an average type, a common education and routine is both possible and desirable. The demand to have one teacher for one child is as false in theory as impracticable. We have, however, to be keenly alive to the exceptional types, and deal with these prudently.

For most even of these highly-gifted children, one of the best lessons that they can possibly learn is the use and value of what is average, and we have to help them so to develop their special gift, that they may not, by a mistaken reliance on their one talent, become foolish in matters where what is ordinary and usual is of far greater importance than what is exceptional. School should offer the average boy opportunities of measuring himself with those whose talents are far beyond his own, and at the same time it must enable the boys of

exceptional talent and aspirations to develop themselves prudently, and to live in society with their fellow fools and their fellow brutes, for these are, after all, their brothers, with whom they will have to get on in after-years, or else pass their lives, as many men of genius have done, in perpetual discontent and misery. School must, however, not exaggerate the average qualities of average boys. An injurious influence was formerly exercised by the first class English public schools, in that they made the average boy think too little of his powers and the clever boy too much. "Modesty", said jesting Jowett, "is only a virtue in youth", and perhaps even this excessive belief in one's self does more good than harm. At any rate "a mixture of a lie doth ever add pleasure". But the feeling engendered by the Homeric treatment of the rank and file compared with the Hectors, Achilleses, and Ajaxes worked badly on the careers of the ordinary boys. They felt themselves one of a genus, a specimen, a black ant on a forest ant-heap, or a sombre-clad sparrow amid the thieves of the harvest. They became shorn of their individuality. Their spirit of self-assertion was unduly depressed. They started to face the world in despair of their own powers. School-life, instead of making them manly and self-reliant, made them tame and wanting in forgetive power.

While, then, there is a growing demand that individuality may be more respected, on the other hand some say the crop of individualism in modern life is too heavy, and that the spirit of Rousseau, while destroying obedience to traditional practices

and conventional customs, has replaced it with a love of disobedience for its own sake. It has been said that old-fashioned behaviour and principles which had some admixture of sound sense have been replaced by sophistical and fallacious statements which have none.

Undoubtedly the hardest task of the educator is to help a growing youth to know himself, for that involves a wide knowledge of others. A boy has to learn to play his part with others, and not to live in solitude. He has to learn that the great organic communities with and in which he has to live and work, the state, the church, the army, or other professions, are not mere aggregates of individuals, each getting something for himself which alone determines his association with the others like political parties. He has to learn that great organic associations depend on the due expansion of the individual will; and that each member must learn to understand himself and others by expanding each his own will until it embraces the wills of others, and thus to become a member of a corporate and, in the ecclesiastical phrase, a mystical union.

There is, however, a type of individualism which is the purest vulgarity. "Who", says Amiel, "has not been repelled by the conduct of the young men standing at the corners of the village-green on Sunday evenings? The starlight is superb. The night is peace, harmony, and fragrance. The youths howl breakdown songs, purposely out of tune and harsh, they grin and make coarse or brutal remarks and jests on passers-by. Why all this? It is instinct. It is the imperious need of

self-assertion. It is the feeling they must assert themselves to be what they are; they must oppose themselves as such to everyone else; they must set themselves in contrast sharp and clear with all around, with nature, with poetry, with order, with society, with harmony, with the adoration which raises us to God. It is I, I, I, before all; I by opposition, I by vulgarity, by contortion of face, by coarse chaff, by impertinent caprice, by independence and self-sovereignty, by exultant spontaneity, I for myself, a self-sufficient, invincible monad, outside, not inside God's creation. It is I as Satan tempted Adam, I as the centre of all, I to be as God."

This conduct is a gross and coarse caricature of man's most precious privilege to be himself; it is the abuse of personal responsibility, it is the nightmare of the conception of freedom. Yet these young musicians of Bremen, the ass, the cock, and the dog, may learn wisdom in time. Let them alone, let them continue their base concert till its repulsiveness appals even themselves. The sense of shame must grow up from within. Better this individuality than none at all. For it is certain that modern thought often does tend to the practical suppression of individuality. Materialism and socialism both overlook and misunderstand the true value of human personality and efface it, the one in the sum of natural facts, the other in society.

As there is a danger of sacrificing the whole for a part, as when a child is momentarily indulged, regardless of his whole career, or when the majesty of the law is unvindicated owing to favour in a

special case, so there is a danger of sacrificing a part for the whole, as when a boy at school with a special taste finds no opportunity of pursuing it because it lies outside the routine of the school. What is inconsistent with the bond of union that holds any society together must be got rid of, but the wisest may easily confuse what is with what is not essential, hence the reformer is easily excommunicated or martyred, and man has ever behaved most shamefully to those who have served him best.

To develop individuality, boys ought to have some time alone, and some place where they can follow their own thoughts. Amiel remarks finely: "In the depths of self leave some room for the vague, undecided, and mysterious; leave a corner of the land uncultivated where chance seeds may grow as the wind conveys them; leave a few branches to shelter strange birds; leave an altar unascribed where there is a place for a strange god. Allow some novel thoughts to grow without much criticism. If the soil is of the right sort and well cultivated, bad seeds will not take root, and only what is good will flourish there."

The greatest difficulty of the teacher is to possess the tact and skill to know how much fallow-time to leave his scholars. This inner hidden individual life must not be choked and destroyed by the exigencies of social organization. Character is suppressed if the individual is made a mere instrument of the body or community to which he belongs. The true social aim is to frame a society, such that each member governs himself, hard as it is to establish this type of government. The

Latin people, it is said, cannot establish self-government nor accept truth as a whole. They seek miracles and objects of faith and worship at Lourdes and elsewhere. They petrify abstractions, and never penetrate into the inner sanctuary of the heart where ideas are not yet fashioned apart and completely defined. Instead of seeking truth, they build a fort round an accepted position and defend it from attacks of critical enquiry. Their daily life is determined exclusively by custom, tradition, and convention, however contrary to reason and sound criticism. It was this conventionality that Rosseau undermined, but the Latin people still dread individual responsibility for themselves and do not train their children to it. "The English family", it is well maintained by Amiel, "is the opposite of this. Each member has his place, and fills it in an orderly way. Each has his duty, and the rights of each are respected; children are happy, smiling, and trusting, and yet discreet. They know they are loved, but they do not presume on this. English mothers practise a firm impersonal rule which is the base of all law. Children feel they have rights and are not obeying arbitrary and capricious commands. 'Dieu et mon droit' is a principle imbibed by Englishmen with their mother's milk."

If, then, the English family is so good a type of a social community, cannot we imagine, according to Frœbel's views, a school which shall be designed as an extension of it rather than a substitute. Such an institution would aim at a position between the old-fashioned school and family life. It

would be wider than the family circle, but the masters would not be out of relation to the boys when not instructing them, nor mere companions in games. The masters and boys would have common occupations in farm and garden and workshop, and in expeditions for surveying, science studies, and practical handwork and military training. The boys would not be left too much to themselves, nor subjected to the degrading espionage of the pitiful *pion* of the French schools. In such a school there will be a place for both sexes, and the brutalities of Tom Brown's experience will be avoided, while the effeminacy of a smug boarding-house will be equally absent. Hard and rough work out of doors will check the growth of squeamishness, and evening occupations, in the way of music, literature, recitations, readings, play-acting, and the like, will cultivate refinement. We want nothing soft, and yet nothing brutal or brutish.

We can imagine a school in the country, where hardihood can be cultivated amid fresh air, open windows, and cold water, where life is simple and varied, and the evils of excessive subdivision of labour are avoided.

The effect of a one-sided education is obvious. We have excessive division of labour, distributing life into sharply-divided states of toil and amusement; work without pleasure in it, and amusement without intellect. We have a vast heap of human misery which we pity and cannot alleviate; we have abolished slavery in word, but there are masses of men who are not yet free and cannot develop their individual capacities.

THE TREE OF KNOWLEDGE AND THE TREE OF LIFE

ADDRESS AT THE ANNUAL CONFERENCE OF THE PARENTS' NATIONAL EDUCATIONAL UNION, 1898

LAST year, on a corresponding occasion, I had an opportunity of laying before you some account of the Institution which has been founded for some years in Berlin, where women of all ranks can learn both the science and the art connected with rearing and teaching children, and the management of the house. Frau Schrader's work, has, I read, been treated of this week before the Fröbel Society. It appears to me that among the many branches of its work which a Parents' National Educational Union should bear constantly in mind, the extension of undertakings of this kind is one of the most important.

We hear, and some of us experience in our own own families, much of the strife of nations in the present day, and it looks as if our country, at the end of this century, might be again, as it was at the end of the last, fighting for its existence as an imperial power. It seems well, therefore, to bear in mind the immense importance of making the most of every living child, both physically and mentally. It was a fine thought of Pestalozzi's, that the character of a people could be raised by

maternal—that is home—education, which is the base of the work of the P.N.E.U. This conception of education, I should like to point out, differs much from the views of Plato, the founder of all educational theory. In Plato's view education is the way in which the *national* principles and character are realized in the *individual* member of the nation. It is the nation that must somehow guide the development of the child through the mother. The child is thus to be brought up, as at Sparta, largely under influences which are external to the family. There is little left in such a system for the free development of the individual.

Miss Mason says rightly, education must make for the evolution of the individual. The highest ideal of morality in the ancient view of education was the character of a good citizen in a good state. Such an ideal is no mean one; we all ought to have it; but while aiming at nothing lower we ought to aim at something higher. For Christianity, building upon and extending the views of the Hebrews, has taught us to look beyond the daily needs of the society into which we are born. Beyond and above the laws of the nation there is the conception of the Laws of God. It would appear that if freedom of development and natural growth under judicious and far-sighted guidance are held the right system of education, then this can only be worked out effectively through family life. Of course lazy people are apt to confuse such true development on the part of the child with the principle of *laissez-faire* on the part of the mother and father. But the truth is, that unrestricted

growth of the child is impossible without much attention on the part of all those in charge of him. The analogy of the garden is complete. A flower will not bud and bloom in natural perfection unless the gardener defends it from all injurious influences, and this art requires much science. There is no member of the P.N.E.U. who does not look on the nation as an aggregate of families and as depending for its welfare upon the successful organization of family life, in which the members of the commonwealth are developed to the utmost in spirit, mind, and body. It is through the family that the character of the nation can be raised, and that character includes the growth of the body as well as of the soul.

The P.N.E.U., then, in endeavouring to direct the attention of parents and all who assist them, whether teachers, doctors, nurses, or others, to the need of a more systematic study of the moral, spiritual, and physical nature of the child, is working in accordance with the beliefs, and hopes, and recommendations of the wisest and best of men from hoar antiquity to the present hour. It seems to me, therefore, that the P.N.E.U. ought to encourage what, for want of a better description, I will term technical education of women, in all matters relating to family life, or as Mrs. Steinthal has put it, the Utilitarian Education of Girls. It appears to me that in every country and in every large town there should be an institution where girls and women of all classes in society could study the art and theory of all that appertains to home life. In France and Germany and Holland

much has been done to supply instruction of this type, and, quite apart from all other advantages, I venture to think there is some evidence that these races are growing physically stronger and that the number of stunted and ill-developed children is decreasing. I am not sure whether, when we read the account of those who devote their lives to assisting the lowest stratum of English society—the stratum which I am afraid is correctly described as the dregs of all the classes rather than a special class,—we can feel sure that the English are keeping up the standard of bone and muscle which existed before the congregation of the inhabitants in big towns and manufacturing centres.

The following is a recent statement of a Medical Officer of Health, who thereby defends a parent from the charge of cruel neglect on the score that he is only dirty. The Medical Officer of Health writes, *inter alia*:—"If dirt on children be taken to be neglect, within the meaning of the Acts quoted, there will be no end to these prosecutions. Very poor people are as a rule dirty, and generally verminous. . . . It is hopeless to expect that this, or any town, can ever be free of its naturally sluttish people and their dirty homes. It never struck me that such should be looked at in the light of criminals, nor that imprisonment is in the least likely to improve their condition. Under the Public Health Acts we deal with them in a comparatively gentle way, giving notice of requirements, with sufficient time for carrying them out. . . . Surely the better way of getting sanitary

deficiencies amended would be to direct the attention of the sanitary authority to them. We are open to receive complaints and give them our attention, and possibly the object of the N.S.P.C.C. will be as well served by their inspector bearing this in mind."

It is clear that civilizing influences must work from above downwards. What can Sanitary Authorities do without deep-seated public support, and the public can only give this support where properly instructed. At present men attribute dirt, disease, and death to the visitation of God instead of to their crass and criminal ignorance.

Some may say home education ought to be studied at home. The answer to this objection is, that no home is so perfectly organized that everything can be taught in it which is desirable to be learnt. Institutions are needed. One of the most complete of British institutions of this type known to me is that which exists in Edinburgh for technical training in domestic work, called the Edinburgh School of Cookery and Domestic Economy. Here there are elementary and advanced classes in cookery, dressmaking, and millinery, plain needlework, laundry-work, hygiene, home nursing, housekeeping, and book-keeping. There are also courses laid out for housewives and lady housekeepers. Besides these courses special provision is made for the training of teachers, including high class, plain class, and artisan cookery. Doubtless in London the Polytechnics are attempting similar work, and at the Battersea Polytechnic the courses are perhaps in some respects of a higher type, and corre-

spond more nearly to the ideal of such institutions as I will presently endeavour to describe it. Another admirable institution is the Yorkshire Ladies' Council of Education with head-quarters at Leeds.

It is my opinion that the number of institutions of this kind should be largely extended, and I cannot but believe that those who wish to do their country some service and help to leave it better than they find it should take every opportunity of supporting this movement. Unluckily the amount of wealth accumulated in the country is so enormous that to be called an educated person is perhaps becoming equivalent to having a dilettante knowledge of literature, science, or art, and no practical knowledge of the material needs of life and living, which are relegated to other people and paid for as menial service.

Now it may seem that the drift of my remarks has been to reduce the occupations of women to domestic drudgery, and that it tends to advance the materialization of society, which is already over-materialized. It may also seem that the title of my paper has been selected because I prefer the tree of life to the tree of knowledge. However, I wish to advocate something very different. The tree of knowledge should somehow be grafted into the tree of life. I wish to raise the arts of living and not cut down the tree of knowledge. I can see no reason why knowledge should be pursued by ordinary persons for its own sake out of all relation to the needs of daily life. I do not see why knowledge should be

degraded because it is studied in relation to practical affairs. It seems to me that some means must be found of reconciling formative and utilitarian purposes in our studies. I cannot help thinking that the technical schools for girls and women on the Continent are just so far superior to most of those which have been attempted in England, because, while in our own country the studies in the technical schools for women are purely utilitarian, and the students pursue nothing but a special course or courses in cookery, or laundry-work, or nursing, omitting all studies of a general nature, abroad the course of practical studies is held incomplete without lessons in language, history, geography, moral conduct, and other branches of science.

In Frau Busch's Woman's Industries School, in Leipzig, the object is to give the students a theoretical and practical knowledge of all the duties that belong to the management of family life, and to inspire them with a love of industry and readiness to attend to business. The aim is thus strictly practical. But yet the time-table provides the students with regular exercises in their native language and literature.

In Munich, a Continuation School has been established consisting of a three-year course, in which girls are taught the care and education of children from the first cry onwards. They learn the most recent contributions of science to the subject of breathing and ventilation, food and digestion, care of teeth, warmth, temperature and clothing, sickness and nursing. Besides the physi-

cal development of the children, the instruction deals with their intellectual development. The students learn about the senses and their mode of operation, the development of presentation of ideas, feeling, and instinct. The aid of a sensible medical man, teaching in the light of modern science, thus rescues the young children from mistaken treatment arising out of prejudice, bad tradition and custom, and neglect. The instruction is practical as well as theoretical, and is treated on broad lines, so that general principles are not obscured in a multiplicity of detail. The students learn the arts of the kindergarten by visiting such institutions in the town and assisting in the occupations of the infants. A doctor shows them how to fill up a nurse's report, take temperature, and select suitable nourishment in sickness. Bishop Fraser once said that the right sort of instruction for a youth was the kind which ended in his knowing where to look for the varied information which he would be constantly requiring when grown up. Many of the Germans now pride themselves on surpassing other nations in versatility. It is no doubt very difficult indeed to combine versatility with stability of character. The pluck and pertinacity of the British bull-dog are worthy of all admiration, but the expansion of science and the application of it to industry, the growth of new wants and the fresh means of supplying them, all make modern life more and more complex. We may sigh for an Arcadian simplicity and homelier living, but the trend of civilization is not in that direction, and it is useless to find fault with what is not in itself

necessarily bad. For it is the abuse of modern opportunities and not the use of them that is to be deplored. The hard thing is to live up to all the new advantages that surround us. The increase of opportunity implies increase of educated effort to make a worthy use of it.

There is no valid reason why practical housewifery and the rearing and training of children should not be intellectual pursuits. Almost every action may be based on science, but there is a tendency in the present time to take little account of literature and philosophy, whether mental or moral, in technical schools. I read a letter from a girl who had passed from a good elementary school to a Polytechnic. She described her routine and its results, and was justly proud of first-class certificates (beautiful ornaments) in cooking, washing, and dressmaking. The acquisition of these arts is worth the effort. They are the sound fruit of the tree of life, but none of them are by themselves stimulating, inspiring, or elevating, apart from the products of the other tree. It is not a question of book *versus* bench, or knowledge *versus* action, but of the working of a mind on a mind. There is a valuable paper in *Hand and Eye* for March, and also printed in the Report of the Sloyd Association of Great Britain and Ireland for 1898, by Mr. Sidney H. Wells, Principal of the Battersea Polytechnic, upon the influence of the technical education movement on the profession of teaching. He shows the danger of substituting a cook or a carpenter for a schoolmaster or schoolmistress, and the effect of separating kitchen practice from the

methods of true education. It must not be forgotten that the disciplinary value of athletic training has been vastly enhanced since it has been undertaken by educated men instead of merely professionals.

One of the chiefest differences is the mind of the teacher. Skilled artisans or cooks, whose early training has been such that they have never exercised their minds upon the great problems of conduct and government, of history, literature, or art, will seldom see beyond the material product of their skill. They can communicate their art and make boys into carpenters or girls into cooks, but they cannot reach the spirit. Therefore I earnestly hope that ladies and gentlemen who have enjoyed the advantages of a liberal education may take up, as some few have already done, this new and difficult task of grafting the tree of knowledge on the tree of life. I hope that many local charities which are now devoted to antiquated and useless purposes may be devoted to establishing technical schools for girls and women, in which utilitarian training shall not be divorced from formative studies. There is need of men and women who will devote themselves to educational work of this kind. It will be largely a work of self-sacrifice. There is little recompense of reward in it, whether in a pecuniary way or in respect of honour or glory. To follow the beaten track and supply the demand of the current market is far more lucrative to the producer than making fresh experiments, which, like all valuable experiments, though they are fruitful whether they succeed or

fail, often do fail. Nevertheless, those who apply themselves earnestly to this work may have the satisfaction which Schiller says comes to all great-minded people, that they are living for posterity.

ON SPENCER'S "EDUCATION"

A BOOK that is written for a particular time, if it be written by a great author, often becomes a book for all time. Few will deny that Herbert Spencer is one of the most considerable of the famous series of English thinkers, and although not everyone accepts his principles of philosophy, yet even those who differ from him will perhaps admit, with Lord Beaconsfield, that we should be grateful to any philosopher, however much we may disagree with him.

Herbert Spencer's treatise on education should unquestionably be studied thoughtfully by everyone who pretends to make any enquiry into this most intricate and difficult, and I may even say tedious subject. I call it tedious because I cannot deny that the elevated thoughts on which all of it depends hardly serve to raise to the level of a high argument the petty details which must needs make up the present round of child-life. The incidents of the nursery day by day must needs seem trivial, unless parents and others are something of prophets and can see the future through the present, the fulfilment in the promise, and the hope of the empire in the success of their training.

It is most important to bear in mind in the outset, that Spencer does not claim to be writing a detailed treatise upon education. His aim is to state a few general principles, and to notice a few methods in illustration of them. The reason why

it is so important to bear this fact in mind is because it is only so that the reader can avoid the common error of hunting in vain for what is not in the book, and never intended to be there, and thus allowing his disappointment to make him overlook the valuable suggestions which it really contains.

A book that is written to meet the wants of a particular time is unavoidably limited by the special circumstances of that time. When Spencer was writing this book, and looked around at the general state of culture in England, when he regarded the average type of graduate put forth annually in hundreds by the universities, he would not fail to be struck by gaps in their studies. Natural Science was without any devotees, there was no History School, and the German language—the key to all serious study—was seldom mastered. There was not one Science master in most of the Public Schools at that time.

Spencer had no idea of revolutionizing the educational arrangements of his day; for, as a philosopher, he stated clearly enough that systems are not made, but grow. Sound ideas require time for fulfilment. They may be sown broadcast, but the minds of men do not work in a single season like the soil of a field. Ideas have not only to be understood, but they have also to be reconciled with previously existing ideas, and adapted to the mental furniture of the current generation. The human whole—mind, body, spirit,—however we divide it up, is seen to be far too complex to play tricks with. Old experience, which is part of a

working system, may be more effective than sound ideas that, being new, are not yet worked into a system. The nature of the required changes must be explained in the first instance, but means for carrying them out can only be discovered with patience and by taking plenty of time.

In Spencer's first chapter he discusses what knowledge is most worth, and gives the first place to science. I think that, since he was writing in days when the science that was acted on in daily life was almost mediæval in its character owing to the general ignorance of the advance of learning, he was justified in giving a very prominent place to Natural Science. He saw that the kind of education that was given both to boys and girls tended rather to the acquisition of accomplishments than to power to accomplish. When, he says, a mother is mourning over a first-born that has sunk under scarlet fever, which might not have been so serious a complaint if the offspring's health had not been enfeebled by over-study, it is small consolation to her that she can read Dante in the original.

He saw that industry of all kinds, whether agricultural or manufacturing, was becoming more and more dependent upon the study of science. He saw that the result of the struggle for existence among nations was resting more and more upon the amount of science which each of them applied to the affairs of daily life. He points out that the ability of a nation to hold its own against other nations depends on the skilled activity of its units.

He saw the appalling infant mortality, nearly

half the babies born in some districts dying in their first year; he saw the weak and sickly survivals that lived to be a burden rather than an aid to the state, and then he insisted on the need for some widely-spread study of the science of health, and the structure and maintenance of the human body.

Science in those days was thought to be irreligious, or at least drawing men away from religion. Spencer maintains that true science is essentially religious. Devotion to science is a tacit worship. It is sad, he says, to see men learned and critical over the Homeric poetry and passing by without a glance that grand epic written by the finger of God upon the strata of the earth. Devotion to science is not a mere lip-homage, but a homage expressed in actions, not a mere professed respect, but a respect proved by the sacrifice of time, thought, and labour. Only the genuine man of science can truly know how utterly beyond human conception is the universal power of which nature, life, and thought are manifestations. Thus Spencer asks, What knowledge is most worth? and answers —Science. Science is needed for maintenance of life and health; science is needed for gaining a livelihood; science is needed for the due discharge of parental functions; science is needed for the discharge of the citizen's duties. It is science that saves religion from becoming mere enthusiasm or degrading superstition; it is science that directs the intellect into profitable studies, and it is science that rescues morality from becoming mere conventional behaviour. Education has four

aspects—physical, intellectual, moral, and religious —some study of science is necessary for each.

I have said Spencer's *Education* was written for a special time. Perhaps in these days it is no longer necessary to make such an elaborate defence for science, but I am quite sure that when the book was written Spencer's language was not too strong. Science was tabooed in most of the schools and frowned upon in innumerable pulpits. We may be grateful to Spencer for his advocacy of science as an indispensable part of education.

In respect of moral training I think his attitude is equally satisfactory. As he wishes to make intellectual education less bookish, and to cause more attention to be paid to the art of applying knowledge, so he would make moral training less conventional. He would have the moral law an inner and not an outward necessity. It must be a spirit growing up within and not merely imposed from without. It grows from within when you constantly cultivate good feeling in the child and encourage acts according to them. It grows from without when moral conduct is the result of threats, bribes, and ill-considered arbitrary punishment. After spending her own youth in playing pieces on the piano, in fancy needle-work, in reading story-books and novels, and in party going, a woman knows nothing of the nature of the emotions of her children. She thinks some are wholly bad, which is not true of any one of them, and that some are wholly good, which is also not true of any one of them. Ignorant of the basis of feeling upon which moral life must be built, she

knows nothing of the effects produced on it by this or that treatment. It is the same with fathers: acting on the caprice of the moment, or false principles adopted without examination, they alienate their sons, drive them into rebellion by harshness, and ruin them and their families. Better some knowledge which would tend to put an end to this than exclusive attention to Greek plays. The study of literature and art should be built upon a foundation of science, or else education is like the craft of a gardener, who, in aiming to produce a big flower, starves the plant. Education certainly involves sound discipline, and discipline is born of firmness, but firmness is often confused with sternness, and parents have often been stern, and even harsh and cruel, with the impression that they were maintaining discipline. Mere discipline, mere external laws, do not produce morality. Many a gentle boy and girl have followed the primrose way to the everlasting bonfire through such ignorant mismanagement. Their parents have succeeded in making them dread, not wrong-doing, but punishment. I think that some theological systems, parodies rather than examples of Christian teaching, have supported this mistaken treatment. At any rate, when Spencer wrote, it was still worth while to lay great stress upon the distinction, old as recorded time, between enslaving the spirit of a child and guiding him into good feeling; between the fear of hell and the love of heaven; between the dread of the consequences of wrong-doing and the affection for the higher life; between the spirit of Wordsworth's Ode to Duty, and of Calvinism.

Education must be non-coercive. As Bishop Dupanloup said:—"I will respect human liberty in the youngest child". Multiplied restrictions are to be avoided. The aim is to arrange the child's occupations so as to thwart his will as little, not as much, as possible. Aimless asceticism is an evil, not a virtue. Spontaneous activity must be directed, not cherished. Co-ordinate and organize the child's impulses with fear and trembling, dreading suppression, and fearing, like a clumsy pruner, to cull off a vigorous shoot, instead of merely repressing exuberant growth. Watch and attend on nature; do not substitute artificial for natural occupations—understanding by natural what is suited to the age and disposition of the child. Encourage the child to seek and follow advice rather than to replace his will by your own. Let your aim be self-development in the child through wisely directed habits and occupations rather than superinducing an alien mind. Spencer guards himself against the idea that he supposes for one moment that you can produce a child of nature by leaving a child to be brought up by nature, as though he advocated entire *laissez-faire*. To assist nature there is no need to unduly interfere with nature. Because you do not swaddle a baby in yards of winding cloth you need not therefore let him roll off a cot on to the floor and injure his spine. By harsh training the child may be mastered, but in the end, when the youth has to leave home and enter on the responsibilities of life, the only useful part of his moral training is that which has led to self-mastery. If the spirit of the relation between

the child and his parents and guardians is one of antagonism, if the parent looks on the child as always naughty, and the child on the parent as always morose, the present life is miserable, and the future almost desperate. Encourage the child to aim at small conquests, and take a delight in small triumphs. Set before boys some generous purpose to achieve and live for. Let childhood ripen in the child, and be as much as may be his helper, adviser, and experienced friend, rather than a despot or tyrannical autocrat.

If right conduct in the moral training, and the pursuit of knowledge in the intellectual, are made habitually repugnant, there will be a prevailing tendency to discontinue both as soon as parental constraint comes to its inevitable conclusion.

It may be that at the present time there is not much need to insist upon it, that in the main the process of his education must be pleasurable to the child, or else it will probably be a failure; but when Spencer wrote this fact needed emphasizing.

As regards methods of teaching, Spencer did yeoman service to the cause of education in reiterating the value of Pestalozzi's principles, and restating them in the clearest way. Exercise the limbs and the senses before burthening the memory, substitute experiment, and observation, and manual training for rote work. Deal with concrete objects before abstract, even in number and geometry. Take the child out of doors and let nature enter inside the school-room. Take notice that there are mental powers in the child,

but that they do not become active all at once, but in a certain order. Study that order and follow it. The powers of the mind are developed by use. Search out appropriate exercises and study the individual child and his peculiarities. Sympathy with the child's difficulties, and tact in dealing with them, are essential. Above all, knowledge of books must not be pursued without the training of hand and eye, nor without the practice of drawing, painting, and constructing objects in paper, cardboard, and the like; because handwork more than any other enables the child to feel what it can do of itself. "I made it", is ever a feeling of triumph, and gives a sense of power to do and confidence in self. This kind of work develops courage to attack difficulties, patience in fighting with them, and perseverance through failure.

It would seem to me doubtful whether the history of civilization throws as much light upon plans for educational systems as Spencer supposes. It seems to me that modern researches leave us less certainty than prevailed some time back, as to the precise course of this history; and, although the embryo seems to follow in abbreviated stages the development of the race to which it belongs, I see little but a fanciful analogy in supposing that the mind of the child must progress on the same lines as the intellectual expansion of mankind. This, however, is a minor matter, and critics of Spencer attach, I think, too much importance to the discussion.

Lastly, I come to Spencer's chapter on moral

education. I think in this part of his book there is a certain clumsiness, natural to a philosopher, and "one who has no children", but in spite of this the chapter deserves the approbation of all members of the P.N.E.U. for one bold and remarkable statement.

The end of education is to prepare the young for the duties of life. Then, says Spencer, is it not surprising that not an hour should be devoted to preparation for the gravest of all responsibilities, the management of a family. Whether as bearing on the happiness of parents themselves, or whether as affecting the characters and lives of their children and remote descendants, we must admit that a knowledge of the right methods of juvenile culture —physical, intellectual, and moral—is a knowledge of extreme importance. This topic should be the final one in the course of instruction passed through by each man and woman. The subject which involves all other subjects, and therefore the subject in which education should culminate, is the theory and practice of education. This view of education is surely at the root of the principles of the P.N.E.U. For this reason the members of the Union should deal respectfully with Spencer's book, even though they differ on certain points.

Educational systems, Spencer is well aware, and emphasizes the fact, like political constitutions, are not made, but grow. Improvement must needs be slow, but, however slow, improvement implies the use of means, and among the means is discussion. The Parents' Union is the most important society for stimulating such discussion, and we should be

grateful to Spencer for insisting on the importance of discussion. Undoubtedly many people hold that what demands much discussion is not much worth discussing. Spencer is on the side of those who value discussion. Discussion is rather to aid us in avoiding mistakes than to elaborate some uniform scheme of education. Few will deny that it is worth while to hold up an ideal of family discipline. Ideals, if rational, are in their nature unattained, but not exactly unattainable, and they are indispensable beacon lights or guides. We cannot cease from war in our time, but the ideal of Universal Peace is still the highest ideal of international law.

Moral discipline, says Spencer, should be based upon natural consequences. Let parents see that their children experience the true consequences of their conduct, neither warding them off nor intensifying them. I always feel that natural consequences as a base for discipline is inadequate. The examples that Spencer gives cover too little ground.

If a child is unpunctual let him suffer for his unpunctuality. He may, however, be late for school and punctual for the school-feast. A child may learn not to play with fire by a slight burning of the finger from an awkward use of a lucifer match, but he may burn the house down and himself in it, so that there is no child to discipline. If a small boy slides down the banisters, are you to warn him and then leave him till he falls off and breaks his arm or leg, or worse? The natural consequence is too often out of all proportion to the offence. Spencer,

however, is conscious of this, for he admits that a three-years' urchin playing with an open razor cannot be allowed to learn by the discipline of consequences.

I feel that Spencer is adopting an often useful device for a particular fault or class of faults, and raising it to the dignity of a general principle, with almost comic effect. I think, however, that even if the device could be carried out consistently it would be insufficient. It seems to me that there is no really moral principle involved in it, and that the idea is contrary, or at least inconsistent with Spencer's own view that moral conduct must be conscious and not superimposed; that the child must learn to take a pleasure in the right conduct, and to be averse to the wrong. If parents give wise orders, their children ought to be glad to obey them because they love their parents. This is an ideal. Parents cannot always give wise orders. Who is wise enough for these things? Children cannot always avoid testiness, irritability, restlessness, and the like.

But, after all, Spencer seems to me to have been rather opposing the principle of severe punishment than insisting overmuch on his own recipe. He is absolutely true to human nature when he remarks that harsh and unsympathetic treatment makes children harsh and unsympathetic in after-life. He was opposing, and rightly, excess of control, over-regulation, and hothouse virtue. The child must not be allowed to think that what passes for right ıct is nothing else but his parents' arbitrary There is all the difference between enforcing

what is right and setting up the idea that what is right is merely what you enforce.

Spencer rightly objects to the style—"How *dare* you disobey me?" "I'll *make* you do it, sir." "I'll teach you who is *master*." A skilful parent or guardian can secure a spontaneous conformity to parental wishes, leading to self-control, by means of which obedience is secured without needless cross and harsh demonstrations of authority. Mould the will, do not break it; make children obedient, but not submissive; give boys gradually greater and greater responsibility. What unwise parents call giving their sons liberty and freedom from constraint, wiser parents will show to be imposing on them increased responsibility for self, which is a saving of trouble to parent and increase of trouble to child, little as he thinks so unless taught.

To sum up, I have endeavoured to show that Herbert Spencer's book on Education is worth your study. Do not look for what is not there, namely, a complete system of education, but rather profit by what is written. Much of it is consistent with common sense—the need for science, the inadequacy of the mediæval quadrivium, the need for pleasurable labour in learning, the need for moulding rather than breaking the spirit of children, the counterblast to a repressive system which once prevailed. Lastly, he is most to be approved for his approval of Pestalozzi. Do not lay too much stress on punishment by natural consequences, nor the idea that the education of the individual must follow the development of cultivation in the human race. These are really minor

matters. On the other hand, as you believe in the principles of the Parents' National Educational Union, at least respect Spencer for boldly placing the goal of all education in the being properly qualified to undertake parental responsibility.

GEOGRAPHY IN ELEMENTARY EDUCATION[1]

DEFECTS OF EARLIER METHOD

IT cannot be denied that of all the subjects which belong to elementary education there is none which is more attractive than geography. It is almost the only one, except what is called the science of common things, which keeps the teacher and scholar in touch with new discoveries and fresh developments.

Yet geography remained for a long time one of the dullest of subjects, because it consisted in learning by heart lists of mountains and rivers, with their heights and lengths, often without even the identification of their locality on the map.

To make a subject interesting, details must be presented in relation to each other. One fact must be dealt with in such a way as to explain another. As Professor Mackinder has said, the teacher's aim should be to show not only "where", but also "why".

The defects of the old methods of teaching geography may be summed up as follows:—

First, geographical learning was not based upon object teaching, but upon names and numbers, which had little meaning for the child, and no interest. A pitman in the north of England, looking at a poster which advertised a course of

[1] A paper read at the British Association meeting, Bradford

University Extension Lectures on the Age of Elizabeth, was heard to remark: "Age of Elizabeth! well, I'm blessed if I care how old she was". Many a child in former days had the same kind of feeling about the length of the Yang-tse-kiang. The facts were as dead as a skeleton, and could communicate no vital force to the intellects of the scholars.

Secondly, whereas the key to the understanding of the rest of the surface of the earth is to be found in the study of that part of it which adjoins the child's home, this fact was quite ignored. Observations made by the child, under guidance, will enable him to use the words *hill*, *plain*, *stream*, and the like, with some meaning behind the terms. So, too, by watching the varying height of the sun, the changes of the season, the rainfall, the first appearance of familiar birds and flowers, the rise and fall of the tide, and such matters, the child can lay a sure foundation for the intelligent study of more advanced geography.

Thirdly, the map was supposed to speak for itself. Little attention was paid to the interesting and important art of map reading. The truth is, that to the untrained eye a map is a confused mass of lines and names and colours. As Shakespeare says: "He laughed till there were as many lines in his face as on the Map of the World, with the Indies added".

Fourthly, there was not sufficient introduction to the construction and use of the map. Children should be shown how to record on paper the direction and length of short walks. They should

be taken to commanding views, and shown how to place, according to the compass, some of the chief features in the landscape. They should learn to pass from observation of nature to modes of representation of nature, and they should feel the need for marks to represent hills and rivers and towns before they study elaborate maps. They should pass, in short, from the object to the symbol or diagram of it.

Fifthly, the children's studies were almost exclusively confined to political geography, and too little attention was paid to physical and astronomical geography, which are the basis of the other. Boundaries of states change; the form of the earth abides.

Sixthly, geographical details were not sufficiently connected as cause and effect, and they were not regarded from various points of view. Each country which is studied, although no great amount of detail is really needed for the purpose, should, when the study is complete, present to the scholar a connected whole.

Seventhly, a great many details were learned by heart which really had no value whatever to the beginner—as, for instance, the names of all the rivers that flow off eastwards from the Scandinavian mountains to the Baltic Sea.

PROGRESSIVE COURSE BASED ON OBJECT-LESSONS

The systematic and continuous study of geography should be deferred till the child is eight or

nine years of age. Before this stage, coloured or other pictures of England and foreign countries may be shown, and romantic stories of adventures by land and sea may be told or read, and attractive poems, like "Ralph the Rover", may be recited or read to the children, and talked over. Walks may be taken, and the geographical features of the country may be pointed out. The sunrise and star-rise may be watched, and the beauty of brooks, rivers, and the "innumerable laughter of the sea" may be enjoyed as opportunity permits. When a child is eight or nine years old, however, the study may become more precise. By use of slates or paper ruled in squares, and by taking a side of a square for a foot or a yard, the child may learn to construct a plan of the class-room to scale, and also to make such measurements of the walls as are necessary for the purpose. I think work of this kind, on square-ruled paper, although simple, is of very permanent value, and that it is fruitful learning, because it suggests numerous useful applications of itself later on.

An excellent book on teaching geography through object-lessons, by Mr. Frew (Blackie), shows how children may learn to make graphic records of short walks or even longer expeditions. That a plan shows size and shape and direction, and that a line carefully drawn from point to point as the direction of the walker changes, may record the turns he takes in the course of a long walk, are facts worth mastering, and not really hard for a child to master if taught in a practical way, by doing, and not by reading.

The next best help to the understanding of the right use of geographical terms is a relief map or model of the locality of the home. Along with the model there should be a photograph of it, because this forms an admirable introduction to the idea of a map. The difficulty of the map-maker is to indicate on a flat surface the relief of the land. The difficulty of the child is to think how a flat surface like a map can possibly indicate a mountainous or hilly country.

The third stage after the use of the model and the photograph of it is the pictorial map, or bird's-eye view; and the last stage is the ordnance map of the same district. For young children, as for newspaper readers, a bird's-eye view is an excellent introduction to a real map. Some may say that this careful gradation of difficulties, and this presenting them one at a time, are unnecessary. They are wrong. Clearness of apprehension and clearness of thought are gained in early years by this slow and methodical practice. For want of it great mistakes are often made by men of undoubted ability.

Children can learn from a model of their country most of the important geographical terms in a concrete form.

Such a model presents the various types of elevated land, such as the isolated hill, ranges of hills, masses of high land, passes in ranges of hills and valleys, and ways of communication. It enables the beginner to obtain a clear idea of rivers, and not merely rivers, but river basins. Watersheds also are easily studied, and similar facts.

By suitable questioning, based upon the model, reasons can be drawn out for the rise of a town in a particular situation. The idea that there is little that is really arbitrary or matter of chance even in the site of a town or village may be well developed, and simple ideas of reasoning conveyed in an effective way, even to young children.

Geography is the study of the earth as the stage on which the drama of the human race is played out; hence traces of former inhabitants can be noted, with a view to connecting geography with history. The difference in climate between different parts of the district may be noted and explained. Where the hills catch the Atlantic winds and condense the moist air into vapour; where the downs form pasture for sheep; where the lower-lying sands and clays bear forests; and where the earliest flowers and fruits appear — such fundamental facts as these are hard neither to observe nor to understand.

MAP READING

This now brings us to the foundation of all real study of geography—namely, the wall-map.

The scholar, so far, has proceeded after the following method: first, observation; second, description; and third, representation—first the eye, then the lips, and lastly the pencil. He has learned to use his eyes; he has learned to describe what he sees in correct terms, and by using complete sentences; and lastly, he has learned how geographical details can be represented on paper. A map

should no longer be a dead and mute mass of lines, colours, and names, but a living and speaking interpretation of natural facts.

In studying the wall-map of England, it is a great advantage to have a graduated series, in which one set of facts is presented at a time. The first of a series will be purely physical, showing hills and rivers; the next map may show counties, towns, and railways; the next, industrial or economic facts and easy statistics. It is a great pity that we have not a few boldly-drawn historical maps of England, for use in elementary schools, showing England under the Romans, Anglo-Saxon England, and mediæval England.

Of course there comes a time when the scholars must pass from what they themselves can observe and record to what others have observed and recorded. The great difference between mediæval and modern education lies in this, that whereas in the Middle Ages the teacher omitted all this basis of observation and commenced at once with communicating to the child the experience of others, so that all was taken by the learner on trust, and an uncritical habit of mind was cultivated, at the present time the best schools attempt to base their teaching on the direction of the child's individual faculties and means of acquiring knowledge. The wall-map is a record of the observations of others, and the child can only properly understand it if he has made and recorded similar observations for himself.

Now there are wall-maps and wall-maps. If the map is to be the interpreter of nature, it must in-

terpret nature correctly: every line must have a meaning. It is not good enough if it gives merely the political divisions, with a few vague indications of mountain chains, but without delineation of highlands and lowlands, peaks and passes, watersheds and valleys.

Map reading, which is the proper use of the wall-map, is a kind of reversal of the process of the study of home geography. In studying home geography the child begins with a natural fact, such as a river or a hill, and learns how to represent its position and character on paper. In reading a wall-map, the scholar begins with the symbol or representation of natural facts, such as watersheds and valleys and mountains, and by means of them works his way to the natural fact which such symbols represent. Hence the extreme importance of the right study of home geography. The symbols on the wall-map are vague and meaningless unless a content and significance are given them by the previous study and practice of the building up of local plans and maps. The pupil must learn to translate the symbols of the wall-map back into the forms of nature which they represent.

The teacher can then, if he have the use of a good wall-map, by judicious questioning, direct the scholar's attention to noteworthy physical and other facts, and lead the scholar first to observe, and then to draw inferences from what he observes.

This kind of analytical study of a map is easy enough if the map is really good. If, for instance, the rivers are marked in their course up to their

true source, if passes in mountain ranges are shown, if river basins can be made out, then the child need not be told that the Rhine rises in Mount St. Gothard; he can quickly find it out from the wall-map, under the guidance of a developing question. Similarly, the termination of the North and South Downs in two headlands—namely, the South Foreland and Beachy Head respectively—can easily be discovered by the child himself, if aided in the manner described.

Gradually the child acquires skill in drawing inferences, and thus he continues to proceed by the triple process of observation, description, and representation, much as he did when studying home geography. By observing the map, the child may be helped to infer much about the level and vertical forms of land which he has never seen, together with its river systems and its topography. He may also learn to infer the main character of the climate and the consequent productions of the soil.

The first wall-map that the child will study carefully will be that of the country in which he lives; not, of course, that even the younger children should never be shown a wall-map until this stage is reached. On the contrary, even the youngest children may look at a globe and a map of the world showing the British possessions, and a map of England. Before beginning the systematic study of a subject, it is useful to learn something about it in an informal way; the study of geography may be imperceptibly introduced, and first glimpses may anticipate more thorough inspection.

Besides the hills, rivers, counties, and towns of England, a few striking facts of exports and imports should be introduced by aid of Whitaker's *Almanac* or Sell's *Commercial Intelligence*, a few contrasts of rainfall east and west, and a few facts of historical geography. In this way a child early learns the existence of the various branches of the subject—namely, of physical, political, historical, and commercial geography, and the kind of differences between them.

Tables may be made in which the trade of a few towns is set out in a graphic way, and thus curious facts come out—as, for instance, that London imports more than twice as much as Liverpool, but exports only half as much.

GRAPHIC EXERCISES

This leads up to the mention of the value of *graphic work* in geography. The first branch of graphic work is, of course, drawing maps. Where the teacher requires a more or less interesting exercise in drawing and tinting, the scholar may practise copying on a large scale a map of Europe or of any country as a whole. Such map drawing, however, does less than might be imagined for the study of geography. Map drawing should be a form of object teaching. What is object teaching? It is the employment of all the possible means by which the learner may acquire an exact conception of an object, whether this conception is a mental image, or, in more abstract studies, what may be called a whole of reasoning. The use of map drawing should be much the same as that of

making diagrams in other studies. For instance, in studying physiology, a carefully-drawn muscle or nerve or gland in a diagrammatic form is much clearer to understand than the confused mass of flesh from which it has been dissected. The map, then, should not be drawn by the scholar before he has studied the wall-map with the greatest care.

Secondly, each map which the scholar draws should serve some definite purpose. For instance, his sketch-map may show that he can trace on the map and set down on paper the basin of the Thames or the Ganges; or it may show the directions of a journey from London to Madrid, and the relative positions of the leading towns on the way, which is a kind of elementary traversing; or it may show the disposition and arrangement of the cotton towns around Manchester, and the like. In most cases these sketch-maps are best worked out in conjunction with the teacher, but the teacher's sketch-map should never supersede the observation of a good wall-map. It is impossible for sketches to be as accurate as the wall-map, and, apart from wall-maps, sketch-maps encourage vagueness instead of leading to precision. The sketch-maps should proceed from simpler studies to more complex ones. No one should attempt to draw a map of a country as a whole until the leading features have been dealt with separately. Analysis should precede synthesis.

Then, again, while maps should be as neat as possible, they should emphasize the important features. For instance, in English maps of the

Pennine Hills the marked depression between the Aire and the Ribble is seldom indicated, yet this has determined the course of the Leeds and Liverpool Canal and of the Midland Railway; and some maps made in Germany show it quite clearly, but not always those made in England. It is only when the sketch-map is thus employed to simplify the real map, and in close connection with it, that it can be considered object teaching. Map drawing, then, should be a constructive exercise, and not mere copying. It should be the external presentation of a mental conception. It should not be a part of a process of learning by memory, but rather a means of proving that a right impression has been obtained.

In drawing sketch-maps, the details should be simplified with consideration, so as to emphasize salient features. For instance, in sketching the Rhine or Danube, only the leading bends need be attended to, and towns or tributaries associated with them should be emphasized. A good basis for a sketch-map is a cross, consisting of a meridian of longitude crossing a parallel of latitude, both carefully chosen.

Map drawing is not the only form of graphic geography. Striking statistics of trade and commerce can be made clear by the use of paper ruled in squares, and those who teach commercial geography should proceed some way with exercises of this kind. "Graphic illustrations", says Quetelet, "often afford immediate conviction of a point which the most subtle mind would find it difficult to perceive without such aid."

CONNECTION WITH HISTORY AND OTHER STUDIES

The principle of the correlation of studies should not be neglected. Of course the principle should not be pushed too far, but by a judicious application of it one study may reinforce another instead of forming a distraction to it. While, for instance, England is being studied in the geography lessons, and especially the counties, let the early period of English history be read, which explains their formation. Also let some of the pieces for recitation illustrate some of the scenes which are described in the geography lesson. Let, for example, Kingsley's beautiful lyric, "Go, Mary, call the cattle home, across the sands of Dee," be learned when Cheshire is studied.

Simple records of rain and temperature and wind, and the first appearance of birds and flowers and fish, throw much light on climatology. Object-lessons also help the understanding of the circulation of water, the formation of ice, glaciers, and icebergs. In some places interesting records could be kept of the tides, and the temperature of water at different times of the year, whether in the sea or in rivers or springs, and similar facts which bear on climate.

Much spirit is awakened in young students of geography by expeditions for practical work. Such expeditions are growing more common in England, but the following account of the organization of school expeditions as they have been made in France is worth attention.

DESCRIPTION OF GEOGRAPHICAL EXCURSIONS IN FRENCH SCHOOLS

The scholars in some French schools carry with them on such expeditions all that is necessary in a handy form, but no more than is necessary, and the cost is reduced as far as possible; and they learn to make themselves at home wherever they find themselves. The arrangements described are made for children between the ages of ten and fifteen.

Each scholar, and of course also each adult, taking part in the expedition carries a canvas bag —if waterproof, so much the better—containing a plate, made of unbreakable material, and a cup, a knife and fork, and spoon, and a small towel or napkin.

There are three types of expeditions, according to the time devoted to them.

The first consists of a short day's walk into the hills, forests, or other places where there are no houses or inns to be met with. The scholars take provisions for the day in their bags, along with the other things above mentioned.

In the second type of expedition, somewhat more comfort, not to say luxury, is secured by hiring a horse and cart to accompany the expedition. In this way more substantial food can be taken, and also urns and kettles for making tea. Aided by a cart, the expedition can cover more ground.

The third type of expedition is one which extends over at least one night, and it may be for several nights.

The details of this kind of expedition have to be carefully thought out and prearranged. The chief conductor places himself in communication with teachers of the schools in the places in which he intends to stop for food or lodging. The principal meal is thus ordered beforehand at a given hour. The payment is made either at so much per head, which is always rather expensive, or the materials are ordered and paid for, and the trouble of preparing them remunerated separately. The party may well dine in a shed or barn, and undertake much of the trouble of arranging the meal, and thus save labour, which means money.

The cost of sleeping arrangements is reduced by the following means:—

Each scholar has two sacks—one made of mattress cloth, which is open down the side, and capable of being laced up, in order that it may be filled with straw. Straw is not spoiled by being used once for this purpose. The other sack is made of coarse cotton, into which the sleeper can insert himself in order to lie warmly and comfortably on the other. Sybarites can make a pillow by wrapping up some straw in their towel.

In the expeditions which extend over one night, the scholars carry in their knapsack, as well as their cup, plate, &c., as before mentioned, some soap, a tooth-brush, and a comb. The morning toilet is made in the open air. Head, neck, and trunk to the waist are rubbed and scrubbed either at the pump, if at hand, or in a river.

The sleeping-sacks, and in the case of prolonged expeditions the necessary change of linen, are

either conveyed in a cart accompanying the party, or sent forward by train.

The excursion is planned beforehand with a certain amount of elasticity, so that any chance occasion of special interest may be taken advantage of, or any breakdown made good, without much confusion or disorganization.

The map of the route is carefully studied. The best for use is one which shows the contours. Our English ordnance coloured contour maps are the envy of the French. It is a good plan to place a sheet of glass over the map and trace the route upon it. Another way is to make a map of the route, and multiply it by any manifolding process, and provide each member of the party with a copy. The scholars discuss their route beforehand, both under the guidance of their teachers and among themselves. There is first the physical geography of the country to consider, then the natural history, places of interest, industrial facts, and the like.

During the expedition, time is found for practice in traversing with a prismatic compass, for using the barometer, the pedometer, the pocket sextant, and the Abney level. Suitable apparatus is also taken for studying the flowers, and the nature of the soil and rocks and fossils. Of course there is also a small pharmacy and ambulance in case of wounds, indisposition, or similar accidents.

The speed of progress varies. Sometimes the party saunters along, looking carefully at various objects of interest, scenery, flowers, birds, and cultivation of land, and taking notes; sometimes it marches at a steady pace, making straight for some

goal. The way in the latter case is much enlivened by music, either by singing school songs or by a small band.

It only remains to add that, before starting, the party is carefully drilled in packing their knapsacks, in making their straw couches and unmaking them, and putting them away in the assigned place.

Expeditions like this have been made during the summer holidays, and as many as fifty scholars have spent as much as fifteen days on a tour. On one occasion some sixty scholars made a week's tour in Belgium. Such expeditions strengthen the body as well as the mind, and girls as well as boys take part in them. It is to be wished that they should be undertaken in this country as they are abroad.

LOCAL GEOGRAPHICAL SOCIETIES

In conclusion, I will give a brief account of the Southampton Geographical Society, because I hope to prove by it that for promoting and deepening the interest in the study of geography there is no more excellent way than to establish similar local geographical societies—if possible, in connection with the Royal Geographical Society. Such societies have been formed at Liverpool, Manchester, and Newcastle. The Royal Scottish Geographical Society is, of course, not adequately described as local; it is imperial. The work of these societies is well known, and the efforts made by the Manchester Geographical Society to encourage the study of geography in day and evening schools formed the subject of an interesting paper

which was read before the British Association in 1896, under the title of "Practical Geography in Manchester".

The youngest of these societies is the Southampton Geographical Society, and a brief account of its aims and mode of working will, it is hoped, be of interest to the members of this section.

The Southampton Geographical Society was founded in 1897. The aim of the society is chiefly educational; its purpose is to acquire and diffuse geographical knowledge in the town and district by uniting the efforts of all who are interested in the science of geography. In the first place, lectures are held periodically from October to April. These are of two kinds. Those which come before Christmas do not form a continuous course, but are given by travellers who have visited foreign countries and are able to spread information which they have obtained at first hand. The stimulating effect of such a lecturer's words influences the minds and hearts of the students as no amount of accumulation of learning by reading books can ever do. The society has enjoyed the privilege of hearing, among many others, Mrs. Bishop on the Yang-tse River, and Miss Kingsley, whose heroic death is still so fresh in our memories, on West Africa. Mr. V. Cornish has shown us how to study the waves of the sea and sand waves. The Chamber of Commerce in Southampton has also helped to supply lecturers. The second portion of the session, between Christmas and Easter, is devoted to a continuous course on some special branch of geographical study. Dr. Mill has lectured on

the principles of geographical instruction in special connection with British colonies. Mr. Dickson has lectured on the physical geography of the oceans, and recently Mr. Herbertson has treated of South Africa. A special feature of the society is the attempt which is being made to carry out the suggestion of Archbishop Benson, which he made at a missionary conference at St. James's Hall, in London, in 1894. "The scientific study of missions", he said, "is a thing which is beginning, and could only begin after people in general had got some idea of the philosophy of history. The business of the great missionary societies has been to plant the faith. The scientific study of the results of their work as a great historical subject, revealing a view of the enormous importance of the idea of missions, such as has been thought out by Mr. B. Kidd, is work for thoughtful people who desire to form sound and philosophical conceptions of what missions really mean in the evolution of human society."

This is a copious and generous study for those who wish to know something of the place of missions in current history, whereto they are growing, and how they may be helped, and, it may be, where they have made mistakes. It is the business of the wisest and most thoughtful, of the most experienced and well read, to develop and propagate this study. In accordance with this suggestion, the society has listened to a paper from the Archdeacon of Trinidad, upon the general geography and the social and industrial condition of the island as it is to-day, with special reference to mission work and its

effect on the negroes. The winter session, then, is devoted to lectures. During the summer months expeditions are arranged for the purpose of studying geography in a practical way.

Day expeditions are made to places in the neighbourhood. The company divides itself into groups, each group being in charge of a competent guide. One group, in charge of a late member of the Ordnance Survey Office, maps out, by aid of a prismatic compass, a track of a small area in the New Forest. Another group devotes itself to the forest trees in the same area, another to the botany, and another to the insect life. At the end of the day the company meet together, and the various guides give a brief report of the results of the day's proceedings.

In some cases these expeditions take the form of an object-lesson in illustration of some part of the spring course of lectures. For example, after the lectures on the ocean by Mr. Dickson, the society hired a steamer, and, under the guidance of Mr. Garstang, of the Plymouth Marine Laboratory, an expedition was made to the Solent, in the course of which a comparison was made and tabulated of the results of investigations into two stations—one in the Solent off Spithead, and the other off Netley, in the brackish tide of the Southampton Water. The temperature and density of the water at varying depths were ascertained by use of the deep-sea thermometer and the water-bottle. The fauna and flora of the surface and the bottom were explored by a fine silk tow-net and a trawl. The results of this expedition, besides profoundly

interesting the company, proved of some scientific value to Mr. Garstang.

The society is also promoting the publication of a set of maps of the county for use in schools, which will show, in bold and not too minute rendering, its (1) physical geography; (2) geology; (3) archæology; (4) history; (5) industries. It is also collecting a library and sets of lantern slides, &c.

The inaugural lecture of the Southampton Geographical Society was given by Sir Clements Markham, who, in an address which kindled in the audience something of the enthusiasm with which he is himself inspired, laid down the lines on which it has been attempted to work the society. In wishing it all success, he gave a cordial welcome to the members, and offered them the privilege of consulting the library and the map-room of the Royal Geographical Society, together with special opportunities of attending lectures and purchasing publications.

A widely-spread interest in the study of geography seems almost indispensable to the administration of this great empire. The century dies, as it was born, amid the clash of arms. The operations of war are in everybody's thoughts. Is it not an assured fact, that at the commencement of the war in South Africa our maps were sadly inadequate, and that for want of better ones the movements of our troops were seriously hampered? There are two points in connection with this defect which are germane to the subject of geographical instruction.

In the first place, the early mapping of a country

depends largely upon surveys of farms and holdings. If boys learned at school how to measure and map land, the surveys of farms and estates in new countries would be much more useful and reliable.

Secondly, we are told that the interest in ordnance work in this country is so slight that the nation would not be prepared to sanction the expenditure of money on mapping our colonial possessions. If the interest in the study of geography were half as widely disseminated as the interest in sport, the country would be keen to provide good maps of its foreign possessions. The expenditure would not be grudged, and it would not be necessary to wait for calamity in war before the chief details of each part of our vast territories were mapped with sufficient accuracy.

Similarly, a knowledge of the work which is being done by the Plymouth Marine Laboratory, with its almost surprising possibilities of aiding fishery and even meteorology, would secure public approbation, and a readiness to devote public funds to its extension. In the same way, exploration of the unknown parts of the Globe, such as the Antarctic Ocean, would command ungrudging financial support, as what people are interested in they are ready to pay for.

The establishment of similar societies in all large centres would conduce to the progress and welfare of the British Empire. May their number increase and multiply!

ON METHODS OF TEACHING GEOGRAPHY [1]

BRITAIN has no need to fear comparison with other nations so far as exploration and commercial enterprise are concerned. In these respects no nation deserves more honour. But it must be admitted that our country falls short in one respect. In answer to the question: "What have the British done to extend the theoretical study of geography?" the answer must be "Little or nothing". Deeds, however, that give rise to no thought are incomplete. Yet Britain is the chosen home of philosophy. The names of Alcuin, of Duns Scotus, of Roger Bacon, of Lord Bacon, of Locke, of Hume, and their followers are sufficient to prove that theory has not been left entirely to other countries. Cavendish, Lyall, Darwin, Joule, and Maxwell have led the world in the application of philosophy to natural science. It remains true, however, that Britain awaits the birth of an epoch-making writer on geography. We have no such series of geographers as Humboldt, Ritter, and Peschel, whose names add so much lustre to the fame of German learning.

In British schools geography has ever been a dull and uninteresting subject. It has been a dreary recitation of names and statistics, of no

[1] Address delivered at the Annual Meeting of the Geographical Association, at the College of Preceptors, January, 1901.

interest to the learner, and of little use except, perhaps, in the sorting department of the post-office. Yet our consular reports are full of reminders that British ignorance of the theory of geography is not bliss. They point out the advantage which better-informed nations possess in the keen struggle for trade. In France almost all the chief commercial centres possess geographical societies. As an example of the work of one of these valuable associations may be mentioned the Paris Commercial Geography Society. The following are the objects of it according to its report:—

(1) To place science at the disposal of commerce, and to put theory in practice.
(2) To aggrandize France by developing industry and commerce abroad.
(3) To receive and sift information from all parts of the world, and store up facts which may be freely drawn upon by all who can turn such knowledge to good account, whether for commerce or for theoretical study.
(4) To extend the study of everything which promotes agriculture, manufacture, or trade, both at home and in the colonies.
(5) To show the mass of the people that they are interested in the produce, exports, and imports of their own and other countries, and that knowledge leads to foresight, and foresight leads to power.

Surely such a society ought to exist in every large town in a commercial country like ours, and be affiliated to the Royal Geographical Society.

As nothing is so practical as sound theory, my first aim in this paper is to give some idea of the methods of studying geography which have been devised in Germany.

Since Humboldt the improvement of the study of geography has been attempted in several different ways. None of these methods is complete in itself, none of them is without value, and all of them ought to be present to the mind in preparing the simplest course of lessons in geography. In briefly reviewing these methods, it must be borne in mind that each of them has been developed in great detail by some school of German writers, and that it is impossible in a short space to do more than open up a glimpse of a wide prospect.

The first is the *Analytic Method.* The student starts with the Earth as a whole, and divides it systematically into oceans and continents and countries. The Globe, as a whole, is analysed into parts, and these are subdivided again. This plan is not suited to beginners, for it presupposes much knowledge. Moreover, this method of analysing a subject as a whole into its parts implies a finality and completeness which is far from being yet acquired in our geographical learning. Nevertheless, even at an early stage a child may be introduced, in a cursory way, to a globe and a map of the world. A preliminary view of the whole forest may with advantage precede a detailed study of the trees, provided it be only a means of marking out the tract that has to be studied, and not the actual method of attacking the study.

The next is the *Synthetic Method.* Proceeding

on this plan, the student deals with a small part of the Earth's surface, and then adds to this a study of an adjoining part, and so on, by continuously successive additions, until the whole Globe has been mastered. It is the converse of the first method. This method ignores the fact that geography is a living study, and that all parts of the Globe are not equally worth studying. Moreover, it nearly always happens, especially to us in the British Isles, that there is some special region of the Globe on which public attention is riveted, and then it is important to learn about this country rather than about one which is not marked out for any special study. Nevertheless, most teachers would deal with England, Scotland, Ireland, and France in close succession, so that, by successive steps, the scholars may arrive at a comprehensive idea of Western Europe before examining more distant parts.

The third is the *Associative Method.* There are some few sciences whose field is so well defined that their subject-matter is but little intermixed with other branches of learning. Such, for instance, is geometry, and, to a great extent, chemistry; but others, like geography, geology, political economy, and the like, seem rather to be composed of parts of several sciences. If we think for a moment of sciences as circles, and then of several circles intersecting at a given point, we have the presentment of a fresh science, which differs from any one of them taken by itself, and yet is made up by the common ground which is shared by all of them. The study of geography

draws upon the sciences of astronomy, physics, biology, ethnology, statistics, archæology, history, cartography, and many more.

Because it associates several distinct sciences for a particular purpose, geography is called an Associating Science. It links together many branches of study which are otherwise dissociated. Of course this plan does not consist in amalgamating history, geology, astronomy, and the rest into one science under a new name. This would be absurd. Rather, it consists in showing the bearing of each of these sciences on the other in a certain sphere of study; how they depend on each other, and how they support each other in dealing with a particular range of facts.

This method seems a matter of common sense, but, like much of this nature, it was only obvious after some deep thinkers had worked it out. For want of observance of this principle, there may still be seen on some time-tables lessons quite disconnected under the heads geography and physical geography.

For an admirable example of a geographical study on the associative method, reference should be made to Dr. Mill's paper upon two sheets of the Ordnance Survey in the neighbourhood of Arundel, recently published in the Journal of the Royal Geographical Society. He dreams of a day when all England may be studied on similar lines; but before this can be done the public interest in the study of geography must be widely extended, and especially in local geographical work.

The fourth is the *Grouping Method.* This con-

sists in classifying geographical facts of the same kind. On this plan kindred facts and phenomena are dealt with together. One section may treat of the Capitals of the World, showing how their sites have been determined. Another section may deal with the Chief Ports of the World, showing their origin and their growth or decay; another section may deal with Glaciers; another with Islands; another with Zones of Vegetation; another with the position of Fortresses and Delimitation of Frontiers; and so forth. This method is clearly not for beginners; it is only suitable for an advanced class, because it presupposes much knowledge. At the same time it helps to deepen the advanced study of geography, and there is much literature which facilitates its pursuit. Facts already known are placed in a fresh light. It connects distant places together and suggests comparison. It leads the student to search for principles, and to comprehend more clearly that there are laws which underlie apparently dissociated facts and phenomena.

Elisée Reclus, for instance, has shown the curious rhythmical distribution of towns along the old highways or coach-roads radiating from the capital of a country. The traveller meets with a larger town about every twenty miles and a smaller one every eight or ten. In other words, the towns are spaced according to the distance a well-loaded coach and horses could cover without stopping for lighter or more substantial refreshment. The growth of railways seems to have tended to increase the town and decrease the village. In the absence of good

means of locomotion large towns arise with difficulty, and nowadays, however remote, do not remain long unprovided with a railway approach. It is this method which suggests the study of the position of towns at the foot of mountain passes, at the head of estuaries, at fords, or at places where bridges can be made over rivers.

The fifth is the *Concentric Method.* This plan consists in teaching even the youngest class a brief outline of all the geography that it is intended the children shall study while they are in the school. The brief outline which is studied in the lowest class is expanded in the next class, and again in the next, like the gradual filling in of a slight sketch to the fulness of a photograph. This method meets the objection that it is absurd for the child to know a plan of his school and the name of the next street and remain ignorant of the main features of the Globe.

This procedure, the concentric, seems to me the best for studying history, because the fundamental conception of history is continuity, the continuity of a people under changing conditions of government and civilization. Disjointed stories and anecdotes and short periods do not give children that sense of a stream of time, nor the perception of the dramatic unity, which lie at the root of national feeling.

As regards the elements of geography, however, except to a very limited extent, there is no such systematic whole to be studied that the concentric method can be applied with advantage.

The sixth is the *Comparative Method.* This con-

sists in comparing the various leading phenomena of one country with those of another. This plan has done perhaps as much as any to deepen the study of geography. Comparison leads to the appreciation of contrasts; it leads to questioning; for example, it forces on the attention the curious parallel between Australia and South Africa, between the equatorial forests in the Western and Eastern Hemispheres, between the physical features of North and South America, and between the local features of New York and Southampton as seaports. The Basin of the Yorkshire Ouse or Humber certainly makes the geography of the Mississippi much more intelligible.

This method cannot be left out of account in any course of lessons on geography, however elementary.

The last method that calls for notice is the *Constructive Method* (Ritter). This consists in teaching the scholars to draw what they are being taught. It is applicable to most of the other methods. Copying a map may be a useful exercise in drawing, but it does not teach much geography. The better way is for the scholars to study the wall-map or small hand atlases of their own, such as Philip's Comparative Atlas of Geography, under the guidance of developing questions, and then for the scholars to give precision to their impressions by making sketch-maps which illustrate special details. By commencing with the hills and river basins they may afterwards construct the country as a whole. Knowledge so built up is more likely to be correct than that which depends

upon the reproduction of a whole map of a country before it has been dealt with in detail. It is best for the teacher to have a good wall-map and the scholar a hand atlas, so that the scholar can follow the teacher as he demonstrates. Other interesting studies may be made on this plan. As an introduction to this work, children may be taken to a neighbouring eminence, and, having in their hands a "graphed" map of the locality, they may mark on it in red chalk all that they can actually see around them.

Another stage of the same process is for the children to take the bearings of various objects which are in view from some eminence, and construct a sketch-map of the landscape that is visible before them.

Or, again, children may have in their hands "graphs" of the World on Mercator's Projection, and mark with red chalk all the places noted for this or that product. It is best to use a different "graph" for each product. Thus may be shown the various tea-producing places, the various sugar plantations, and so forth; where wool is grown, where cotton. Maps thus constructed may be used for comparison with maps which show the distribution of temperature, rainfall, &c. The reasoning which connects these phenomena is so easy that a child may follow it. What is simple is not always the less profound. Diagrams can be drawn showing the slope of a country, say from Johannesburg to Durban, or from De Aar to Cape Town, or from the Bernese Oberland to the mouth of the Rhine.

The road-books prepared for cyclists are most helpful. Figures which mean but little to the reader may, when presented in a graphic form, be most striking and suggestive. By use of paper ruled in squares, comparative tables of area and population may be made most interesting, and so, too, the ratio of the population to area. Then, again, comparative tables of leading exports and imports may be made interesting, if put in a diagrammatic form. To represent varying quantities by comparative areas on squared paper is most instructive. The great advantage of this constructive work is that scholars can be taught to work out these diagrams for themselves, and in a class of scholars of ordinary intelligence, some unexpected and interesting observations are sure to be made.

MIGUEL DE CERVANTES SAAVEDRA

A LITERARY OBJECT-STUDY

IN 1570 the Turks took Cyprus. Christendom was alarmed at the encroachment of Mahometan forces, and Spain, Venice, and Rome formed a Holy League against Selim II, laying aside their old dissensions for the purpose of making a united attempt to bridle the Ottomans, and curb the power not only of the Turks, but of the Moors of Algiers, Tunis, and Tripoli. Under Don John of Austria the most formidable fleet ever seen in the Mediterranean attacked and defeated the Turkish Fleet on the 7th October, 1571, in the Gulf of Lepanto. On board one of the galleys, named Marquesa, lay Cervantes, a boy of fourteen, down in his cabin, sick of a fever. On coming into action, the ship was in the van, and he was urged by his captain to remain in his bed; but he refused, asking what would be thought of him if he did not do his duty, and declared he was resolved to die fighting for God and duty, rather than remain in shelter and nurse his health. Accordingly he was at his own wish placed in the post of chief danger, namely, in a boat hanging from the galley's side and much exposed to the enemies' fire. He performed his part in that day's work so valiantly as to attract the notice of his commanders, and even of Don John himself.

The famous battle of Lepanto, which broke the

spell of the invincibility of Turkish arms by sea, was among the most glorious feats of Spain at the zenith of her greatness, and remained in the memory of Cervantes as the proudest event of his life. During the fight he received two gun-shot wounds in the chest and one in the left hand, which was rendered useless for life—"to the greater glory of the right", as he said in the spirit of *Don Quixote*, his great creation; and his countrymen love to dub him "El Manco de Lepanto", the maimed hero of Lepanto. Cervantes continued in service against the Turks, both by land and sea. He describes in the story of the captain in *Don Quixote*, which is founded on facts of his own life, the feeble effort of the allied fleet against the Turks anchored in Navarino Bay, and afterwards he was present at the capture of Goletta in Tunis, which is also referred to in the same story. His experience of warfare by land and sea afforded him that knowledge of men and things without which *Don Quixote* would not have touched the heart of mankind as it has done. To this war, also, must be attributed the traces of the art and culture of Italy which are manifest throughout his works.

In 1575, on his way from Naples to Spain, he was captured off Minorca by Algerine pirates. The treatment of their prisoners by these pirates was most cruel, and the captivity of Cervantes was of the hardest. He bore it with a courage and constancy which would alone have entitled him to be ranked as a hero. The books of chivalry contain no episode more romantic. The

fabled deeds of Amadis de Gaul and the knights-errant, which had kindled his youthful imagination, did not surpass his real adventures, for the exaggerations of chivalry and romance were even surpassed in the lofty spirit with which he discharged his knightly duty. It was a miserable five years. Evil seemed to triumph over him. Lost to his friends, lost to all hope of living the high heroic life which he had set before himself to live, subjected to hardships, tyranny, and caprice, he bore all with indomitable spirit, cheering the despondent, sharing what little he had with others, helping the sick, risking danger in the cause of Christian faith, and ever bearing himself as a true soldier of the king and as a noble gentleman. His sweetness, his magnanimity and daring, secured him an extraordinary influence, not only over his fellow-prisoners, but even over his jailer Hassan, a Venetian renegade who was famous as a terror to Christendom.

Cervantes' life and sorrows are the key to the understanding of *Don Quixote.* Like the Knight of the Sorrowful Figure, Cervantes started his life's adventures full of glowing visions of chivalry, impatient of wrong-doing, eager to set wrong right, and aid the weak.

The so-called realities of the world might well have suppressed all this faith in the ideal, and dwarfed his soaring spirit. But Cervantes was no commonplace vapouring adventurer. His misfortunes ennobled his soul, and he emerged from them sweeter in temper and stronger in mind than ever.

When thirty-seven years old, Cervantes married,

His own family, though not a noble one, was good, and his wife was of equal birth. He wrote a poem called *Galatea*, criticised by himself among the books in Don Quixote's library, and certain dramatic works, but nothing of first-class merit. At this period of his life he was engaged in providing grain and oil and wine for victualling the Spanish Armada, wandering among Andalusian villages for the purpose, and incidentally enriching his experience of men.

Cervantes lived in great poverty, and *Don Quixote*, according to his own statement, was "born in a jail", like *The Pilgrim's Progress*; the cause of his imprisonment not being certainly known. It was in 1604 that *Don Quixote* was published, when Cervantes was sixty years old, and it should be noticed that the same year saw the publication of Shakespeare's *Hamlet*.

It is needless to say that its popularity caused it to pass through six editions. Since the invention of printing, in 1479, no book had had so many readers. *The Romance of Amadis de Gaul* had led to much feeble and insipid imitation. Here was a burlesque or satire upon that kind of literature, from which, however, unlike any other satire, the best features were selected for approbation, and while that which was rotten was pruned away, that which was sound was placed in a pure and clear light never to be lost to humanity. Here were humour and fun in its utmost abandon; here was wisdom, simple, deep, homely, with refined philosophy; here were true charity and widest sympathy with humanity in

all its strength and frailty; here was a fresh and lively picture of national life, containing all its elements.

Don Quixote's primary aim was, no doubt, like that of all true artists, to please and amuse. His book was a pastime for melancholy and gloomy spirits, but he also meant to laugh out of current literature the romances of chivalry which were harmful alike to morals and taste. He succeeded in his aim. After Cervantes, false chivalry died, and much false sentiment.

Those who care more for historical truth than poetry may find in Don Quixote a type of Spanish nobility and in his servant a type of Spanish peasantry. The rest of Cervantes' literary career, and how his tales suggested to Walter Scott the idea for his novels, and the story of his death in the year that Shakespeare died, 1616, do not concern us now. The next study after the biography is the contents of the famous Romance. It should be noticed that while Cervantes admits in his preface that the ecstasies of Don Quixote may not seem to the reader so novel and unexpected, the character of Sancho Panza is claimed as wholly original.

The pursuit of knowledge had, in the sixteenth century, led men to seek it, not in old books or traditional learning, but in all that is near and close around in nature and human nature. The student and the poet alike endeavoured in that age to grasp with both hands what was within reach. Truth and purity and justice were not laid up somewhere in the sky, but intelligible realities

here on earth. The true remedy for Don Quixote's ecstasy lay in the homely wisdom of his faithful disciple. It was not by abandoning the ideal that relief might be found, but by merely fixing his feet more firmly on God's earth and seeking virtue in all that lay at hand and about him. The Elizabethan dramatists did the same as Cervantes. The ways of men and women, and the loveliness of woods and meads and streams, were their inspiration, and they reached out after what was far without despising what was near.

People have endeavoured to construct lists of the best hundred books in the world. So far as purely literary works are concerned, there are not fifty, not a score! There are Homer, the Greek Play-writers, then the Roman Virgil, and, after him, there are none of that rank until Cervantes and Shakespeare. The list is a very short one.

All things change, but the most stable thing throughout recorded time is human nature. The few great writers of the world have dived so deeply into the springs of human action, and displayed their secrets with such art and charm, that however habits, customs, and countries may vary, man delights in the image of himself which these authors mirror for him in their pages. In these few great books man's nature is presented as a whole, and not from any partial view or in any single aspect. The good is of the highest, but the evil is not left out of the picture.

In commencing *Don Quixote* the reader must beware of prepossessions and expectations, otherwise, looking for what is not there, he will be

disappointed and overlook what it really contains. It is in the spirit of a little child that all great works of genius must be approached. The mental attitude must be purely receptive and not critical. To depreciate anything which the verdict of the human race has pronounced upon favourably is the mark of a small mind.

The reader of Cervantes must not look for a carefully-woven plot such as is ingeniously contrived in a modern novel. He must not, on the other hand, think that in the absence of such a plot there is no unity at all, and that the book consists of a number of mad adventures inartistically thrown together.

If the structure of the book is not at first apparent, that is a reason for allowing the thoughts to dwell upon it for a long time, and for returning to it again and again.

One great charm of the book is that the reader is transported into an unfamiliar country and into a novel society. His narrow, insular, and limited sympathies are widened and extended. If *Don Quixote* is not composed like a modern novel, it is not, therefore, quite unlike any other literature. It must be remembered that it was written in Spain, and that Arabian influence is stronger in that country than anywhere else in Europe. Hence for the type of narrative to which *Don Quixote* belongs it is natural to think of the Arabian Nights Entertainment. This is possible and probable. The manuscript from which Galland's version of this delightful book was made (in 1704) certainly existed in 1548, that is, at the time Cervantes was

born. The long series of stories in the *Arabian Nights* have no connection with each other. They form a miscellany. At first sight the adventures of Don Quixote appear to be disconnected in the same way. The author's hidden and perhaps subconscious art, it is for the reader to detect. The stories are, however, connected psychologically. One adventure relieves the next by a sort of contrast; furious combats are followed by love scenes, the extravagant and exuberant fun, the blunders and blows which are so attractive to boys, are relieved by serious disquisitions, and all the time jest and earnest are so interwoven that the reader finds himself half in tears over the jest and making merry at what is earnest. Cervantes, as he says in his preface, set himself the task of satirizing extravagant tales of chivalry, but he aimed at preserving what was best in chivalry while sweeping away what was rubbish. Hence in quite an early chapter the reader is introduced to the library of Don Quixote, who only "loses his stirrups" when he is dealing with chivalry. The reader should not skip the "grand scrutiny made by the priest into Don Quixote's Library". The chapter throws some light on the Spanish Inquisition, and it also shows how large the growth of Romantic literature had become; and it further proves that Cervantes was by no means willing to destroy the first and original books of chivalry, such as *Amadis de Gaul*, which had some merit, but only the ridiculous imitations, which had none.

Cervantes helps to maintain the unity of his

story by grouping the adventures around an inn, and this device should be compared with Chaucer's *Canterbury Tales*, for he also assembles all his story-tellers at the Taberd inn, in Southwark. Of course the advantage of this device is that it enables the writer to introduce into his story all sorts and conditions of men—nobles and peasants, priests and soldiers, court ladies and peasant girls—in the most natural way in the world. How widely spread was the taste for books on chivalry, Cervantes indicates more than once, showing that not only educated people enjoyed them, but that even reapers and other labourers loved to listen to them in the harvest-field or elsewhere. He shows what charms they had for men, for the servant girl, for the young lady; the men enjoying the combats, the servant girls the love scenes, and the young ladies the impassioned complaints of the knights for their absent mistresses. Tales of romance touched some of the many chords of the human heart in no unworthy manner. It was not in Spain alone that this kind of romance was universally popular. It was just the same in our own country, and besides the Arthurian Romances, enshrined in the pages of Malory and reproduced for us by Lord Tennyson, there are many others, some of which are being published, as for instance the tale of *The Green Knight and Sir Gawain.* The green knight being beheaded lifts up his head and rides away with it. It should be noticed that these mad stories of chivalry throw some light on the fables told of mediæval saints. The Church, finding such adventures in possession of men's minds, saw that

it was easier to transfer them from a region wholly secular to a religious atmosphere than to eradicate from an ignorant age what was so vastly pleasing to it, and hence fables of St. Denys and the like are but the reflection in religious teaching of similar tales in profane or secular learning. In the amusing discussions between Don Quixote, who defends his belief in all the fables of romance and pins his faith on all that is printed, and the Canon, who regards them as a tissue of lies, it is easy to see the never-ending contest between those who desire to sift what is genuine in history from what is imaginary.

But if the matter of romance had become wild and foolish, the style of it was not less ridiculous. Cervantes gives a specimen. "Scarcely had ruddy Phœbus extended over the face of this wide and spacious earth the golden filaments of his beautiful hair, and scarcely had the little painted birds with their forked tongues hailed in soft and mellifluous harmony the approach of the rosy harbinger of morn, who, leaving the soft couch of her jealous consort, had just disclosed herself to mortals through the gates and balconies of the Manchejan horizon, when the renowned knight Don Quixote de la Mancha, quitting the slothful down, mounted Rozinante, his famous steed, and proceeded over the ancient memorable plain of Montiel." Shakespeare, it will be remembered, lays the plot of two of his plays in Spain, namely, *Love's Labour's Lost* and *Much Ado About Nothing*. The fantastical Spaniard Don Adriano de Armado also writes in this absurd style: "So it is, besieged

with sable-coloured melancholy, I did commend the black oppressing humour to the most wholesome of thy health-giving air, and as I am a gentleman betook myself for a walk", &c. From such a style the world was delivered by Cervantes and Shakespeare until some modern newspapers revived it in this country.

But along with the decay of romance and the dissatisfaction with excessive conventionality which substituted ceremony for heart-felt courtesy, there sprang up a reaction in favour of what was called Nature. Cervantes leads us from town and village to the wild hills and the heart of the Sierra Morena. The story of the shepherd Chrysostom, who kills himself for love of Marcela, who will not marry him, is full of pathos and leads to profoundly interesting disquisitions which should by no means be skipped as dull and unimportant. Though they interrupt the narrative they are the real substance of the book, and the adventures are in a manner a sugar coating to a pill. What a pretty natural scene is conveyed in the few words which describe the funeral of Chrysostom! "They discerned through a cleft between two high mountains about twenty shepherds coming down, all clad in jerkins of black wool and crowned with garlands, some of which, as appeared afterwards, were of yew and some of cypress. Six of them carried a bier covered with various flowers and boughs. They made haste therefore to reach them, which they did just as the bier was set down upon the ground, and four of the shepherds with pickaxes were making the grave in the hard rock under a

tree near the fountain." Only more charming than this is Shakespeare's funeral of the fair Imogene in *Cymbeline.*

The danger, however, of passing from excess of conventionality to the opposite extreme, the excess of freedom falsely ascribed to nature, is amusingly dwelt on by Cervantes in the scene where Quixote's niece, during the Inquisition into the books, urges the burning, not only of the works on chivalry which had made her uncle mad, but also of books of poetry. "These", said the priest, "do injury to none." "Oh, sir," said the niece, "pray order them to be burnt, for should my uncle be cured of this distemper of chivalry, he may possibly, by reading such books, take it into his head to turn shepherd, and wander through the woods and fields singing and playing on a pipe, and what would be worse still turn poet, which they say is an incurable and contagious disease." Shakespeare also in his *Tempest* ridicules this kind of return to nature in the amusing scene where Gonzalo tries to comfort Alonzo after their shipwreck on the enchanted Island of Prospero.

> "Had I plantation of this Isle, my Lord,
> I' the commonwealth, I would by contraries
> Execute all things: for no kind of traffic
> Would I admit; no name of magistrate.
> Letters should not be known; riches, poverty,
> And use of service, none; contract, succession,
> Bourn, bound of land, tilth, vineyard, none;
> No use of metal, corn, or wine, or oil,
> No occupation; all men idle, all,
> And women, too, but innocent and pure.
> No sovereignty———"

"Yet he would be king of it!" says one of the other courtiers; and then the courtiers make fun of the garrulous old man's "natural" commonwealth. Don Quixote, in a similar manner, apostrophizes the Golden Age, and Cervantes, like Shakespeare, makes merry over the idea of a restoration of that purely fabulous past. "In that blessed age all things were in common," says Don Quixote, contemplating an acorn; "to provide their ordinary sustenance no other labour was needed than to raise their hands and take it from the sturdy oaks which stood liberally inviting them to taste their sweet and relishing fruit. The limpid fountains and running streams offered them in magnificent abundance their delicious and transparent waters. In the clefts of the rocks the industrious and provident bees formed their commonwealths, offering to every hand without interest the fertile produce of their delicious toil. All, then, was peace, all amity, all concord." Such ideas have reappeared in Rousseau, Defoe, and other writers innumerable, and will forever dangle like forbidden fruit before the eyes of fond enthusiasts.

But now it is time to dwell a little on the Knight of the Sorrowful Figure himself and his faithful squire, for in these is taught more finely than anywhere else in the world's literature the strange and sad fact that conduct which awakens laughter may not always be ridiculous. The Knight sets out on his mad adventure with high purpose, namely, to redress wrongs and win fame among men. It is impossible to separate the Knight's high aim from the crazy means he takes to achieve it. Cervantes

assists the reader in his effort to grasp poor frail human nature, ever, as Goethe says, leaping up to heaven for a moment and then falling back to earth like grasshoppers, by placing beside the Knight the honest peasant, who has no imaginative ideal like his master, but longs only for material prizes, and who, in spite of his belief in what is undoubtedly real and material, is led as far into an unreal world as his master. It is Sancho who reminds the enthusiast that men may "go out into the world to seek better bread than wheaten", and "that to do good to the vulgar is to throw water into the sea", but yet he looks to be governor of an island and make his wife a countess. Events soon show Quixote that his efforts to redress grievances only create them or make them worse. "I do not like your way of redressing grievances; I do not understand your way of righting wrongs," said the bachelor master, Alonzo Lopez; "for from right you have set me wrong, having broken my leg, which will never be right as long as I live, and the grievance you have redressed for me is to leave me so aggrieved that I shall never be otherwise, and to me it was a most unlucky adventure to meet you who are seeking adventures." The Knight tilts with vain bravery at windmills, and trembles with false alarm at the noise of a fulling mill in the darkness of night. Yet he is ever better than his actions. He has the noble art of self-deception. It is, after all, that art which has redressed the wrongs of mankind. "The case was hopeless; yet he hoped." This is, after all, the true spirit of Christian reformers, from St. Paul to the

last missionary. Don Quixote finely retorts on Sancho, who laughs at his misfortune, "Know, Sancho, that one man is no more than another, only inasmuch as he does more than another"; and "if a man should try and fail, at least he has the satisfaction of knowing that if he did not achieve great things he died attempting them". Sancho, however, makes the far-reaching remark, that sometimes we set out in search of one thing and find another, a proverb that reminds us of Saul, the son of Kish, who set out to seek for his father's asses and found a kingdom.

Thus it should be noticed that although Quixote's adventures end so unfavourably for himself, and though his squire never gets his coveted island nevertheless their wanderings lead at last to the good of others; and the happy union of the pairs of lovers Cardenio and Lucinda on the one hand, and Don Fernando and Dorothea on the other, may be set down to the account of Don Quixote all in his favour. This theme of lovers at cross-purposes should, of course, be compared with the plot of Shakespeare's *Midsummer-Night's Dream*, where Hermia and Helena are crossed in love with Lysander and Demetrius.

Among the parallels with Shakespeare's plays is one of the most striking dramatic effects in the book by which Cervantes brings about an interview between the crazy Don Quixote, whose brain has been turned by too much study and ill-directed imagination, with the tattered knight Cardenio, who, crossed in hopeless love, has fled for refuge to the wilds of the Sierra Morena Mountains. The

contrast between the two types of mental derangement, romantic and real, is very remarkably drawn. With this strange meeting might perhaps be compared the interview between Shakespeare's Timon of Athens, the misanthrope whose ingratitude had made him mad, with Apemantus, whose self-abnegation was chiefly pure affectation. It is only a master mind who can bring into juxtaposition two characters, both eccentric and strong, and both outwardly resembling each other, but with a marked inner difference.

The romantic attachment of knights to fair ladies, in whose name they undertake their most dangerous exploits, is a feature in chivalry which Cervantes evidently treats with respect. In one passage he is at pains to show how this zeal for his lady's name may be reconciled with the knight's commendation of himself to God; and by way of contrast he presents Sancho as quite unable to understand any such ideal affection, whether for things human or divine. "How dull and simple thou art, Sancho!" said Don Quixote; "knowest thou not that in our style of chivalry it is to the honour of a lady to have many knights-errant who serve her merely for her own sake, without indulging a hope of any other reward for their zeal than the honour of being admitted among the number of her knights?" "I have heard it preached," quoth Sancho, "that God is to be loved with this kind of love, for Himself alone, without our being moved to it by hope of reward or fear of punishment; though for my part I am inclined to love and serve Him for what He is able to do for me." "The

Devil take thee for a bumpkin," said Don Quixote, "thou sayest ever and anon such apt things that one would almost think thee a scholar." "And yet, by my faith," quoth Sancho, "I cannot so much as read." Passages like these help us to understand the veneration paid in the mediæval church to the Virgin Mary.

One topic more is worthy of special attention. The greatest of the immortals have included it in their works, Homer in the horses of Achilles Shakespeare in the scene between Launce and his dog, Cervantes in the passages of the Goatherd and his Nanny-goat, and Sancho and Dapple his ass. "Suddenly they heard a sound of a little bell from a thicket near them, and at the same instant a beautiful she-goat, speckled with black, white and gray, ran out of the thicket, followed by a goatherd calling to her aloud to stop and come back to the fold. The fugitive animal, trembling and affrighted, ran to the company, claiming as it were their protection. But the goatherd pursued her and seizing her by the horns addressed her as a rational creature.

"'Ah, wanton and spotted thing, how hast thou strayed of late! What wolves have frightened thee, child? Wilt thou tell me, pretty one, what this means? But what else can it mean but that thou art a female and therefore cannot be quiet. A plague on thy humours and on all theirs whom thou resemblest! Turn back, my love, turn back; for though not content, at least thou wilt be more safe in thine own fold and among thy companions, for if thou who shouldest protect and guide them go astray, what must become of them?'

"The party were much amused, and the canon told the goatherd that it was useless to oppose a female, who would as such always have her own way. 'Come, do not be angry, but eat and drink with us, and let the wayward creature have her will,' offering him at the same time the hind quarter of a cold rabbit on the point of a fork. The goatherd thanked him and accepted the offer, and then, being in a better temper, he said: 'Do not think me a fool, gentlemen, for talking seriously to this animal, for, in truth, my words are not without meaning, and though I am a rustic I know the difference between conversing with men and beasts.' 'I doubt it not,' said the priest, 'indeed, it is well known that the mountains breed learned men, and the huts of the shepherds contain philosophers.'

"'At least, sir,' said the goatherd, 'they contain men who have some knowledge gained from experience.'"

Later, when Sancho recovered his lost ass which Ginesillo had stolen, seeing the latter riding on the lost friend, he cried: "Ah, rogue, leave me my darling, let go my life, rob me not of my comfort, quit my sweetheart, leave my delight, fly, rapscallion, fly; get you gone, thief, give up what is not your own."

So much railing was needless, for at the first words Ginesillo dismounted in a trice, and, taking to his heels, was out of sight in a moment. Sancho ran to his Dapple, and, embracing him, said: "How hast thou fared, my dearest Dapple, delight of my eyes, my sweet companion?" Then he kissed and caressed him as if he had been a human creature.

The ass held his peace, and suffered himself to be thus kissed and caressed by Sancho without answering one word. This affection for our humble companions and for the animal creation is a special feature of our own day.

But now I must bid farewell to the Knight of the Sorrowful Figure, conscious that I have but touched the fringe of his robes, and unworthy to do that. His name is the mark of every foolish venture that is bound to fail, but perhaps it should be noticed that not quite every foolish venture is called quixotic, but only those that are for some worthy cause. Therefore, in spite of all that is ridiculous in our associations with this name, there is still something half-sublime which lurks among them. Life may pass away for us mainly in getting and spending, but few people die before they have been brought face to face with action that is not for themselves; it may be at home, it may be on the battle-field. Few will live their lives through without at some time giving, and giving gladly, with no expectation of any return, and where this is done for a worthy end the spirit of chivalry is not far off, and where it is done, as it often is done, for an end which onlookers can see to be out of all proportion to the sacrifice, there appears the very spirit of Don Quixote itself. May it never die! When it does, mankind will indeed be without hope. "Study well these books," as Don Quixote says, "for, believe me, you will find that they exhilarate and improve your mind. Of myself I can say, that since I have been a knight-errant I am become valiant, polite, liberal, well-bred, generous,

courteous, daring, affable, patient, a sufferer of toils, imprisonments, and enchantments." This noble recklessness is well summed up by our New Forest poet, with certain of whose verses I will conclude:

"You will carry the flag, the old torn rag,
You will carry the flag to the fore,
Mid the press and the strain and the deadly rain,
Where our fathers passed of yore.

"You will stand by the flag when faint hearts fly,
And the best that you have you'll give,
For the men who have learnt for a cause to die
Are the men who learn to live."

AN EXPERIMENT IN SCHOOL GARDENING

THE SCHOOL GARDENS AT THE BOSCOMBE BRITISH SCHOOL

STARTING A SCHOOL GARDEN

THERE are two ways of setting boys to work at gardening. They may either cultivate a plot in common, or each boy may be provided with a plot of his own. The latter plan is the better, because it offers superior educational advantages. If, for example, a boy is one of a group cultivating a garden, he cannot know for certain what is the effect of his share in the work. It is only when a boy is sole master of a plot of his own that he can be sure what the results of his efforts really are —whether meritorious or defective.

THE OBJECTS OF SCHOOL GARDENING

A school garden must not be treated as though it were an allotment. The difference is important, because, if it is ignored, the school garden may prove a pecuniary success but an educational failure. The owner of an allotment naturally seeks to make the greatest commercial profit out of his parcel of land. In the school garden, on the other hand, the boys have partly to receive instruction in the rudiments of the gardener's craft, according to the best methods, and partly to find

illustrations for their lessons in natural science, and to make practical application of them. In an allotment the owner often finds it pay better to grow one or two kinds of crops, either for the sake of the demand for them in his market, or because the soil is best suited for them. The school-boy should learn how to raise a variety of crops, and will benefit educationally as much by failure as success. Indeed, where the conditions of soil and climate are so favourable that, be the gardening good or bad, the crop is always forthcoming, though the undertaking may prove a greater commercial success, yet as an educational exercise it will have less value than where nature is unkindly and hard to subdue.

Again, the object of a school garden is certainly not to put boys as apprentices to gardening. Some boys, no doubt, who learn gardening will become gardeners in a professional way when they grow older, but it would be wholly out of place in school unless it served a general purpose as well as having a technical aim.

SCHOOL GARDENS ARE A PART OF GENERAL AS WELL AS TECHNICAL EDUCATION

A very slight acquaintance with modern text-books and their readers, whether dealing of the farm, or the garden, or the home, is sufficient to show that while many of the plain facts of modern science are assumed by the writers to be matters of general knowledge, most of the readers continue to regard such facts as outside their province and

belonging to the peculiar domain of men of science.

Now, some knowledge of the nature of a few of the chief gases and other elements is really indispensable for the farmer, the gardener, and housewife, and it may be acquired in more ways than one. While a girl may study it in connection with cooking and cleaning, a boy may have it brought home to him in connection with a garden plot. The kind of experiments which may be made and studied with advantage in connection with school gardens are described in Laurie's *Food of Plants* (Macmillan), and in an extremely practical and suggestive paper by the Professor of Botany in the Durham College of Science, Mr. M. C. Potter, which was published in the Record of the Association for Promoting Technical and Secondary Education. Mr. J. H. Crawford published in *Natural Science* (July, 1892), a plan for making an agricultural museum, which offers valuable suggestions for associating practical garden work with the study of elementary science in the class-room.

The result of this combined indoor and outdoor instruction will be to spread a much-needed type of general as well as technical knowledge. The rising generation will learn what is the true nature of an experiment, what are the methods of modern science, in what way observations are made and inferences drawn from them, what are the sources of error, and how it comes about that a merely practical man may as easily underrate as overrate the researches of the laboratory.

THE DIVISION OF THE GROUND

(1) Size, Shape, and Arrangement of the Individual Plots

Each boy, then, should have a plot to himself, and in the Boscombe School gardens there are plots for twelve boys. The plots must not be too large, because the boys cannot work more than two afternoons a week. The shape, again, is important, because it is desirable that the boys should be able to perform much of their gardening while standing on the paths between the plots, instead of having to step on the border for every operation. The plots, therefore, measure thirty feet in length, and are only ten feet in width. The four corners of each plot are carefully marked by substantial squared pegs firmly driven into the ground. Each plot is numbered, and the numbers are written clearly and boldly on the face of the pegs.

The longer axis of each plot extends in the direction of east to west, and the width is in the direction of north to south. This arrangement facilitates the cropping. The vegetables are planted in rows across the plots, from north to south, because this plan gives them the best chance of thriving. Each particular kind of vegetable is planted in the same line right across all the plots, so that although in the separate plots the rows are short, being only ten feet long, yet, when the whole set of plots is looked at in one view, the vegetables are seen to be planted in long rows extending right across the garden in regular

lines from the north boundary to the south. The comparative success of each boy is thus apparent.

THE CROPPING OF A PLOT

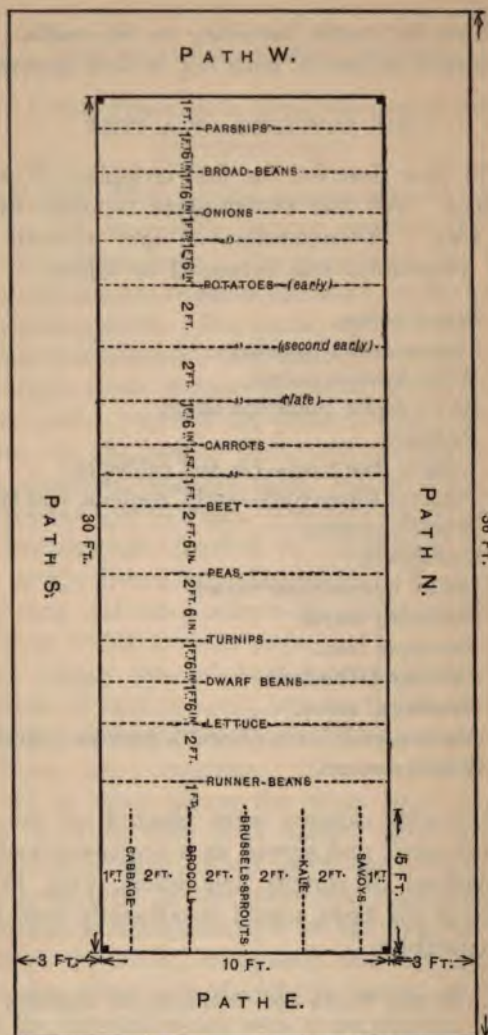
I will now describe the first cropping of one of the plots. All the others were cropped in the same way. A succession of late autumn and winter vegetables was arranged to follow.

Broad beans.
Hollow crown parsnips.
White Spanish onions.
Bedfordshire champion onion.
Radishes.
Lettuce (two rows—cos and cabbage).
Potatoes (three rows—early, medium, and late).
Brussels sprouts.
Cauliflower.
James' intermediate carrot.
Shorthorn carrot.
Pineapple beet.
Cabbage (Wheeler).
Drumhead savoy.
Autumn cauliflower (Veitch's Autumn Giant).
Scarlet runners.

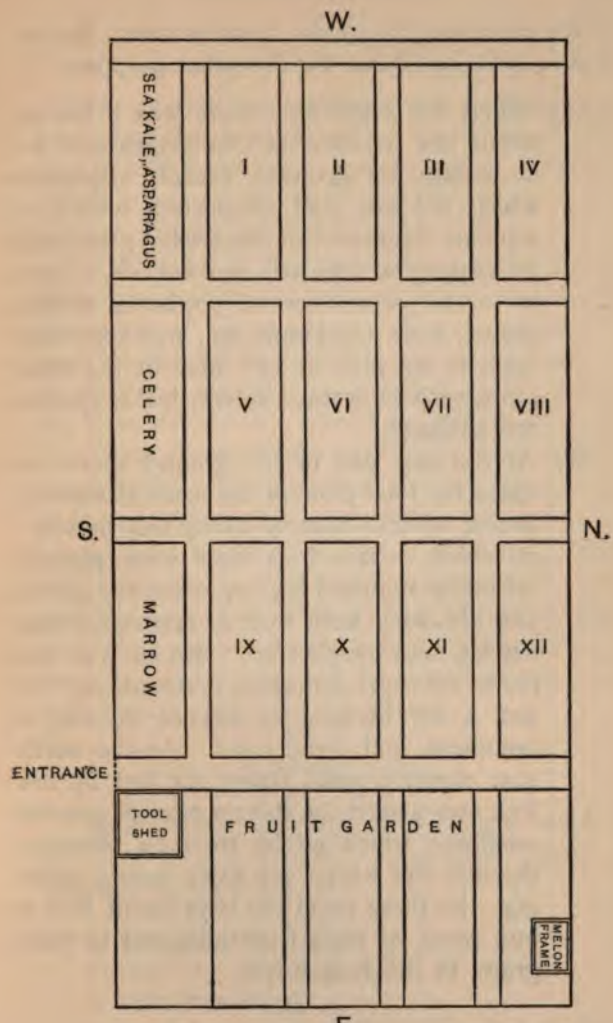
The scarlet runners were planted on the side next the road, and served as a screen against the depredations of roughs and idlers, who, in the absence of the boys, would occasionally steal their best vegetables.

(2.) OTHER PLOTS FOR WORKING IN COMMON

Besides the ground which was taken up by the



PLAN OF SINGLE PLOT.



GENERAL PLAN OF SCHOOL GARDEN.

twelve plots and the paths between them, the enclosure contained space for two other purposes.

(*a.*) Along the south side there was a border, about one hundred feet in length and ten in width, for growing certain vegetables which did not lend themselves readily to separate treatment in the twelve plots, such as asparagus, marrow, and seakale. Here, too, were planted several pot-herbs, such as thyme, sage, marjoram, &c., and also seedlings to be pricked out later in the other plots, such as lettuce, celery, leeks, sprouts, and cabbage.

(*b.*) At the east end of the ground there was space for four plots of the same size as the twelve others—namely, thirty feet by ten—in which certain fruit-trees were planted, including standard apples, pears, and plums, and also such bush fruit as currants, gooseberries, and raspberries. Room was also found for some tomatoes, a strawberry bed, and a few herbaceous flowers, by way of ornament, and some roses. In the north-east corner a small frame, six feet by four feet, was placed for the purpose of growing seedlings, which might thus be preserved through the winter for early spring planting. In these plots the boys learnt how to bud roses, to train fruit-trees, and to make grafts in different ways.

CARE OF TOOLS

The ground was enclosed by a barbed-wire fencing, which was stretched upon strong posts. Inside this fence was planted a privet hedge, in which were set at intervals a few trees, such as poplars, maple, birch, and ash.

At the gate of the enclosure a wooden hut was built for the accommodation of the tools and seeds. It is made of tarred boards, with a corrugated-iron roof. In its dimensions it is nine feet square, and its height at the back is nine feet, sloping towards the front to six feet, where the entrance is made. The floor is paved with brick, and suitable shelves are provided. Each plot has a set of tools assigned to it, and each tool is numbered to correspond with the plot to which it belongs. Each set of tools hangs from a peg, which is numbered in correspondence with the tools. The boys are taught to keep their tools scrupulously clean by aid of linseed oil and paraffin, and to put them away in an orderly manner after using them.

LIST OF TOOLS

The following is a list of the tools which are provided for each plot. The sizes given are adapted to boys' use:—

1 Dutch hoe (four-inch).
1 Draw hoe (four-inch).
1 Fork (four-prong).
1 Spade (seven inches wide and eleven inches long).
1 Rake (ten-comb).

Besides these there are other tools for common use. The following is a list of them:—

List of tools to be used in common.

1 Besom.
1 Mallet.
2 Wheelbarrows.
1 Water-can.
2 Boat-baskets.
4 Lines, sixty feet in length.

The plans on pages 206, 207, show the details of the arrangements which have been described.

THE EFFECTS OF GOOD AND BAD GARDENING CONTRASTED

The soil was of the worst possible description, consisting of almost pure gravel. The boys had obviously to overcome natural difficulties. Cultivation was commenced by trenching to a depth of two feet, which involves digging out three spits. Stable manure was applied somewhat liberally at the bottom of the trench. The summer of 1896 was very dry, but, owing to this "bastard" trenching, although there was no artificial watering, the fine growth of the crops in these plots as compared with the scanty show in neighbouring gardens, where there was far less labour expended, proved the truth of the old saying, "justissima tellus", for the honest earth well repaid all the toil. The produce of the gardens received certificates of merit at more than one horticultural show. The contrast between the results of good and bad gardening

forms a most telling object-lesson, and the difference in the crops, according as the boys are more or less skilful, or as they are careful or careless, is well demonstrated by the arrangement of the rows of vegetables which cross the plots in a straight line.

In the report of the Woburn Fruit Farm for 1897 (Longmans), a method is described of making approximate measurements of the comparative loss of growth which is due to neglect and bad method. The instructor of the Boscombe School gardens, who is himself a nurseryman, is attempting to teach the boys to practise the method of measurement there described.

THE YOUNG GARDENER'S DIARY AND ACCOUNT-BOOK

The boys are taught to make rough notes on the ground, recording the operations of each day, the dates of planting seeds, and the names of the sorts selected. Hints are added as to the distance between the rows of plants, and also between the plants in a row, and a record is made of the kind of manure which is used, and other matters. A daily record of the weather is kept, and the amount of rainfall observed and noted. The notes are afterwards worked up in a systematic form, and serve as a gardener's diary of great value for future use, when in later life the boys do some gardening of their own.

A few extracts from one of these diaries are here subjoined:—

EXTRACTS FROM BOY'S GARDENING DIARY

"March 15.—Sowing onion seed. White Spanish and Bedfordshire Champion. One row of each, one foot apart; made drill about three inches deep; after sowing the seed, raked the soil over them and patted it down with the spade.

"March 22.—Trenching and manuring. The broad beans and peas are showing above-ground.

"March 23, 26, 29.—Trenching, manuring, and weeding.

"April 2.—Finished trenching on all the plots to-day. Edging and weeding paths.

"May 14.—Sowed one row of cabbage lettuce in the experimental plot. Dressed the cabbage plants with four different kinds of artificial manure, namely—

Two rows with nitrate of soda.
Two rows of nitrate silicate.
Two rows with native guano.
One row with ichthemic guano."

ACCOUNT-BOOKS

Each boy sold the produce of his own plot, and the money so earned was brought to the instructor, who received it and entered the amount in an account-book, reserving a separate page for each plot. Each boy also kept an account-book of his own, so that he might feel sure that he received his proper share. The money is divided, and one-

half is devoted to the purchase of seeds for the next season, while the other half is given to the boys in proportion to their earnings. In this way some boys earned as much as eight shillings in the year, while the average was about six shillings.

In conclusion, I may add that a year's garden work had a strikingly beneficial effect upon the growth and physical development of the boys who had thus done their part to carry out the somewhat neglected instruction to man to go forth "and till the ground from whence he was taken".

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